LANCE R. LEFLEUR
DIRECTOR

KAY IVEY
GOVERNOR

Alabama Department of Environmental Management
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Montgomery, Alabama 36130-1463
(334) 271-7700 ▪ FAX (334) 271-7950

FEBRUARY 27, 2020

MR DON HOLTZCLAW
GENERAL MANAGER
WESTROCK - DEMOPOLIS
28270 U.S. HIGHWAY 80 WEST
DEMOPOLIS AL 36732

RE: DRAFT PERMIT
NPDES PERMIT NUMBER AL0002828

Dear Mr. Holtzclaw:

Transmitted herein is a draft of the referenced permit.

We would appreciate your comments on the permit within **30 days** of the date of this letter. Please direct any comments of a technical or administrative nature to the undersigned.

By copy of this letter and the draft permit, we are also requesting comments within the same time frame from EPA.

Our records indicate that you are currently utilizing the Department's web-based electronic environmental (E2) reporting system for submittal of discharge monitoring reports (DMRs). Your E2 DMRs will automatically update on the effective date of this permit, if issued.

The Alabama Department of Environmental Management encourages your voluntary consideration of pollution prevention practices and alternatives at your facility. Pollution Prevention may assist you in complying with effluent limitations, and possibly reduce or eliminate monitoring requirements.

If you have questions regarding this permit or monitoring requirements, please contact Alex Chavers by e-mail at **adchavers@adem.alabama.gov** or by phone at **(334) 271-7851.**

Sincerely,

Scott Ramsey, Chief
Industrial Section
Industrial/Municipal Branch
Water Division

Enclosure: Draft Permit

pc via website: Montgomery Field Office
EPA Region IV
U.S. Fish & Wildlife Service
AL Historical Commission
Advisory Council on Historic Preservation
Department of Conservation and Natural Resources

Birmingham Branch
110 Vulcan Road
Birmingham, AL 35209-4702
(205) 942-6168
(205) 941-1603 (FAX)

Decatur Branch
2715 Sandlin Road, S.W.
Decatur, AL 35603-1333
(256) 353-1713
(256) 340-9359 (FAX)

Mobile Branch
2204 Perimeter Road
Mobile, AL 36615-1131
(251) 450-3400
(251) 479-2593 (FAX)

Mobile-Coastal
3664 Dauphin Street, Suite B
Mobile, AL 36608
(251) 304-1176
(251) 304-1189 (FAX)

ADEM
Alabama Department of Environmental Management

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

PERMITTEE: WESTROCK MILL COMPANY LLC

FACILITY LOCATION: 28270 U.S. HIGHWAY 80 WEST
DEMOPOLIS, AL 36732

PERMIT NUMBER: AL0002828

RECEIVING WATERS: DSN001, DSN005, DSN006, DSN009, DSN010: TOMBIGBEE RIVER
DSN007, DSN008: UNNAMED TRIBUTARY TO TOMBIGBEE RIVER

In accordance with and subject to the provisions of the Federal Water Pollution Control Act, as amended, 33 U.S.C. §§1251-1388 (the "FWPCA"), the Alabama Water Pollution Control Act, as amended, Code of Alabama 1975, §§ 22-22-1 to 22-22-14 (the "AWPCA"), the Alabama Environmental Management Act, as amended, Code of Alabama 1975, §§22-22A-1 to 22-22A-17, and rules and regulations adopted thereunder, and subject further to the terms and conditions set forth in this permit, the Permittee is hereby authorized to discharge into the above-named receiving waters.

ISSUANCE DATE:

EFFECTIVE DATE:

EXPIRATION DATE:

Draft

Alabama Department of Environmental Management

INDUSTRIAL SECTION
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT

TABLE OF CONTENTS

PART I DISCHARGE LIMITATIONS, CONDITIONS, AND REQUIREMENTS

. DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN0011: Process wastewater associated with pulp and paper manufacturing, sanitary wastewater, and stormwater runoff 3/

Such discharge shall be limited and monitored by the permittee as specified below:

	DISCHARGE LIMITATIONS					MONITORING REQUIREMENTS 1/		
EFFLUENT CHARACTERISTIC	Monthly Average	Daily Maximum	Daily Minimum	Monthly Average	Daily Maximum	Measurement Frequency 2/	Sample Type	Seasonal
BOD, 5-Day (20 Deg. C) 5/	0 lbs/day See Footnote 5	0 lbs/day See Footnote 5	-	-	-	3X Weekly test	Calculated	May - November
BOD, 5-Day (20 Deg. C) 6/	REPORT lbs/day	REPORT lbs/day	-	-	-	3X Weekly test	Composite	-
BOD, 5-Day (20 Deg. C) 4/	15963 lbs/day	30677 lbs/day	-	-	-	3X Weekly test	Calculated	-
pH	-	-	6.0 S.U.	-	9.0 S.U.	3X Weekly test	Grab	-
Solids, Total Suspended	29779 lbs/day	55354 lbs/day	-	-	-	3X Weekly test	Composite	-
Nitrogen, Ammonia Total (As N)	-	-	-	-	REPORT mg/l	Monthly	Composite	April - October
Nitrogen, Kjeldahl Total (As N)	-	-	-	-	REPORT mg/l	Monthly	Composite	April - October
Nitrite Plus Nitrate Total 1 Det. (As N)	-	-	-	-	REPORT mg/l	Monthly	Composite	April - October

THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.

2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

3/ See Part IV.B for Best Management Practices (BMP) Plan Requirements.

4/ See Note 1 on Page 3.

5/ See Note 2 on Page 3.

6/ The permittee shall report the actual BOD_5 discharged at DSN001.

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN0011 (continued): Process wastewater associated with pulp and paper manufacturing, sanitary wastewater, and stormwater runoff 3/

Such discharge shall be limited and monitored by the permittee as specified below:

	DISCHARGE LIMITATIONS					MONITORING REQUIREMENTS 1/		
EFFLUENT CHARACTERISTIC	Monthly Average	Daily Maximum	Daily Minimum	Monthly Average	Daily Maximum	Measurement Frequency 2/	Sample Type	Seasonal
Phosphorus, Total (As P)	-	-	-	-	REPORT mg/l	Monthly	Composite	April - October
Flow, In Conduit or Thru Treatment Plant	REPORT MGD	REPORT MGD	-	-	-	Continuous	Totalizer	-
Certification – River Monitoring 3/	-	-	-	-	0 Yes=0; No=1	Monthly	Not Applicable	June - October

THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.

2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

3/ The permittee shall certify the submission of required river monitoring according to Part IV.F.6.

Note 1: For determining compliance with the effluent guideline limitations, the permittee will report the sum of the **actual** BOD_5 discharged at DSN001 and DSN005.

Note 2: For determining compliance with the allocation table found on Pages 4-7 of this permit, the permittee will use the following equations:

***For the period May 1 through November 30 beginning on the effective date of this permit and lasting through the expiration date of this permit.**

$$Daily\ Maximum\ BOD_5(reported)^* = Net\ BOD5 - Daily\ Allocation\ *1.92$$

$$Monthly\ Average\ BOD_5(reported)^* = Net\ BOD5 - Monthly\ Average.\ Allocation$$

*Values less than zero are considered to be in compliance.

Daily Allocation[1/] – This value is determined for each day from the charts found on Page 4 through Page 7 of this permit. The charts define the allocations for specified river flow and temperature combinations. Average flow on the previous day shall be determined at the Demopolis Dam from a minimum of three (3) readings. The temperature of the Tombigbee River shall be determined at the monitoring point adjacent to the Westrock Mill Company, LLC intake structure for the current day.

If either reading is not available, the reading for the previous day will be used. On those days when the actual temperature or flow does not appear on the chart, the permittee shall use the next higher temperature and next lower flow. On those days when the temperature is greater than 32 °C and/or the flow is less than 900 cfs, the allowable allocation will be 1,093 lbs/day BOD5 and the facility must conduct a river run if the dissolved oxygen measured by the USGS Hwy 114 Bridge gauge is less than 4.0 mg/L.

Monthly Average Allocation – This value is determined by aggregating the daily allocations for each day and dividing the sum by the number of days in the month.

Net BOD_5 – The **actual** BOD_5 discharged less an offset for oxygen injected into the river. The permittee may offset 1 pound of BOD_5 discharged by injecting 4.2 pounds of oxygen into the river, but the offset may not reduce net BOD_5 discharged below zero on any day. Oxygen injection systems should be of a design and location approved in advance by the Department and may be installed and operated by the permittee or by a third party with whom the permittee contracts.

Daily River Temperature (°C)	Daily Average River Flow (CFS)															
	900	925	950	975	1000	1050	1100	1150	1200	1250	1300	1350	1400	1500	1600	1700
15	6967	6967	6967	6967	6967	7317	7683	8052	8417	8785	9152	9518	9884	10596	10809	11060
15.5	6804	6804	6804	6804	6804	7144	7505	7865	8228	8584	8945	9304	9660	10354	10545	10780
16	6645	6645	6645	6645	6645	6980	7332	7687	8038	8388	8742	9093	9442	10122	10294	10506
16.5	6491	6491	6491	6491	6491	6817	7162	7509	7852	8197	8543	8884	9229	9894	10044	10239
17	6338	6338	6338	6338	6338	6658	6997	7335	7671	8011	8346	8684	9019	9666	9799	9977
17.5	6190	6190	6190	6190	6190	6503	6833	7162	7493	7824	8153	8482	8812	9449	9563	9719
16	6043	6043	6043	6043	6043	6347	6673	6997	7320	7642	7966	8285	8610	9229	9325	9467
16.5	5896	5896	5896	5896	5896	6198	6515	6830	7148	7462	7779	8093	8407	9016	9093	9217
19	5753	5753	5753	5753	5753	6048	6358	6667	6977	7287	7593	7904	8209	8804	8867	8973
19.5	5613	5613	5613	5613	5613	5900	6203	6506	6807	7112	7412	7712	8015	8595	8642	8732
20	5473	5473	5473	5473	5473	5753	6051	6347	6642	6936	7231	7525	7822	8388	8417	8492
20.5	5332	5332	5332	5332	5332	5608	5896	6187	6476	6765	7053	7339	7630	8181	8195	8257
21	5196	5196	5196	5196	5196	5462	5744	6028	6310	6593	6873	7155	7439	7975	7975	8020
21.5	5056	5056	5056	5056	5056	5316	5595	5871	6144	6421	6695	6970	7246	7771	7754	7788
22	4916	4916	4916	4916	4916	5173	5441	5712	5980	6247	6515	6784	7053	7565	7533	7553
22.5	4778	4778	4778	4778	4778	5027	5288	5552	5814	6076	6335	6599	6859	7358	7317	7317
23	4638	4638	4638	4638	4638	4879	5136	5392	5644	5900	6155	6409	6664	7148	7091	7084
23.5	4495	4495	4495	4495	4495	4731	4978	5226	5475	5725	5970	6219	6468	6939	6866	6849
24	4350	4350	4350	4350	4350	4579	4820	5063	5304	5543	5786	6025	6263	6724	6642	6611
24.5	4204	4204	4204	4204	4204	4425	4660	4893	5128	5364	5595	5828	6061	6503	6415	6369
25	4053	4053	4053	4053	4053	4267	4495	4721	4947	5173	5400	5626	5852	6280	6176	6129
25.5	3898	3898	3898	3898	3898	4105	4323	4544	4762	4982	5199	5417	5635	6046	5940	5881
26	3739	3739	3739	3739	3739	3941	4152	4360	4573	4781	4996	5203	5413	5809	5693	5626
26.5	3574	3574	3574	3574	3574	3766	3972	4172	4377	4579	4781	4982	5184	5565	5441	5368
27	3403	3403	3403	3403	3403	3588	3782	3976	4172	4366	4555	4749	4947	5308	5181	5103
27.5	3225	3225	3225	3225	3225	3400	3588	3770	3954	4143	4329	4509	4693	5045	4910	4827
26	3038	3038	3038	3038	3038	3205	3381	3560	3731	3911	4081	4256	4436	4762	4626	4538
26.5	2844	2844	2844	2844	2844	2997	3168	3334	3497	3662	3827	3994	4157	4470	4334	4246
29	2634	2634	2634	2634	2634	2782	2938	3096	3248	3403	3560	3715	3869	4162	4026	3937
29.5	2417	2417	2417	2417	2417	2555	2698	2844	2987	3134	3278	3423	3567	3835	3700	3610
30	2186	2186	2186	2186	2186	2310	2443	2577	2710	2844	2977	3107	3243	3490	3365	3272
30.5	1939	1939	1939	1939	1939	2055	2175	2292	2417	2533	2654	2778	2895	3123	3002	2919
31	1676	1676	1676	1676	1676	1776	1885	1990	2103	2207	2316	2423	2526	2727	2623	2540
31.5	1393	1393	1393	1393	1393	1481	1575	1670	1762	1858	1947	2045	2133	2310	2213	2144
32	1093	1093	1093	1093	1093	1167	1245	1319	1402	1476	1559	1633	1715	1858	1776	1728

River Temperature (°C)	Daily Average River Flow (CFS)															
	1800	1900	2000	2100	2200	2300	2400	2500	2600	2700	2800	2900	3000	3100	3200	3300
15	11341	11652	11989	12342	12710	13095	13492	13899	14271	14663	15074	15466	15861	15963	15963	15963
15.5	11043	11337	11652	11984	12331	12699	13077	13466	13818	14189	14581	14971	15350	15739	15963	15963
16	10752	11026	11319	11637	11969	12315	12671	13041	13378	13729	14098	14485	14839	15210	15597	15915
16.5	10468	10719	11000	11296	11609	11939	12278	12632	12941	13278	13633	13995	14346	14701	15066	15399
17	10184	10422	10683	10962	11256	11567	11889	12226	12521	12836	13174	13517	13865	14203	14551	14901
17.5	9908	10129	10373	10635	10916	11208	11515	11830	12112	12406	12722	13053	13397	13719	14050	14390
18	9640	9843	10069	10316	10576	10854	11146	11446	11704	11989	12289	12598	12923	13241	13556	13879
18.5	9374	9563	9772	9998	10250	10506	10784	11069	11310	11576	11860	12153	12461	12773	13071	13378
19	9117	9283	9480	9693	9922	10169	10429	10695	10924	11173	11437	11719	12010	12321	12598	12888
19.5	8856	9013	9193	9386	9604	9833	10076	10331	10545	10776	11026	11287	11571	11860	12137	12412
20	8600	8742	8906	9088	9289	9505	9736	9977	10169	10388	10624	10875	11138	11409	11685	11944
20.5	8348	8477	8626	8796	8979	9181	9399	9621	9806	10005	10228	10460	10711	10966	11239	11487
21	8102	8214	8348	8503	8678	8862	9064	9277	9442	9634	9840	10058	10294	10537	10792	11034
21.5	7852	7953	8074	8219	8373	8548	8737	8934	9088	9265	9455	9660	9880	10112	10354	10592
22	7605	7691	7801	7931	8079	8238	8412	8595	8742	8900	9082	9271	9474	9693	9922	10155
22.5	7362	7431	7533	7646	7779	7931	8093	8266	8393	8543	8710	8889	9082	9283	9499	9726
23	7112	7177	7261	7366	7486	7621	7775	7935	8052	8190	8344	8508	8689	8878	9082	9295
23.5	6866	6919	6990	7084	7195	7320	7458	7605	7712	7839	7980	8134	8305	8482	8668	8873
24	6618	6655	6720	6800	6902	7014	7144	7279	7377	7489	7621	7762	7918	8088	8266	8452
24.5	6369	6398	6450	6521	6611	6717	6833	6960	7042	7148	7264	7396	7541	7695	7865	8038
25	6118	6134	6176	6241	6319	6409	6521	6636	6711	6800	6912	7035	7170	7309	7470	7630
25.5	5857	5867	5900	5955	6025	6108	6203	6313	6375	6462	6557	6673	6794	6933	7077	7228
26	5599	5599	5626	5666	5730	5804	5891	5985	6046	6118	6209	6313	6427	6551	6686	6827
26.5	5332	5324	5340	5380	5429	5496	5573	5662	5712	5776	5857	5955	6056	6171	6296	6427
27	5059	5045	5052	5081	5125	5184	5257	5336	5380	5437	5509	5591	5689	5795	5910	6035
27.5	4775	4756	4762	4781	4820	4873	4933	5006	5038	5095	5158	5238	5324	5421	5526	5639
28	4487	4464	4459	4475	4509	4555	4608	4675	4699	4749	4807	4873	4954	5045	5140	5245
28.5	4186	4157	4152	4167	4191	4226	4277	4334	4360	4398	4447	4515	4585	4669	4756	4853
29	3877	3844	3835	3844	3864	3894	3937	3990	4008	4044	4090	4147	4216	4287	4371	4459
29.5	3553	3525	3511	3511	3532	3560	3596	3640	3655	3685	3731	3778	3844	3911	3981	4062
30	3219	3185	3173	3173	3185	3208	3243	3284	3297	3327	3365	3410	3463	3525	3596	3670
30.5	2867	2831	2822	2822	2831	2849	2881	2919	2933	2953	2987	3033	3080	3140	3202	3266
31	2498	2463	2450	2450	2463	2484	2512	2540	2555	2577	2607	2646	2694	2744	2804	2858
31.5	2103	2083	2069	2074	2083	2098	2123	2154	2164	2186	2218	2252	2292	2340	2391	2430
32	1695	1676	1670	1670	1682	1702	1721	1748	1762	1783	1812	1846	1881	1922	1956	1990

River Temperature (°C)	Daily Average River Flow (CFS)															
	3400	3600	3800	4000	4300	4600	4900	5100	5400	5700	6000	6500	7000	7500	8000	8500
15	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963
15.5	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963
16	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963
16.5	15704	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963
17	15194	15809	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963
17.5	14686	15276	15906	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963
18	14196	14747	15358	15941	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963
18.5	13692	14232	14816	15383	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963
19	13192	13732	14282	14839	15670	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963
19.5	12699	13235	13758	14303	15090	15888	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963
20	12215	12756	13241	13765	14522	15292	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963
20.5	11743	12262	12739	13235	13960	14709	15424	15888	15963	15963	15963	15963	15963	15963	15963	15963
21	11279	11781	12247	12710	13416	14140	14816	15259	15950	15963	15963	15963	15963	15963	15963	15963
21.5	10817	11305	11762	12200	12877	13562	14211	14648	15300	15932	15963	15963	15963	15963	15963	15963
22	10369	10833	11279	11695	12353	13000	13620	14043	14656	15267	15906	15963	15963	15963	15963	15963
22.5	9929	10361	10800	11199	11830	12439	13041	13434	14029	14618	15210	15963	15963	15963	15963	15963
23	9493	9901	10316	10711	11305	11889	12471	12842	13409	13974	14536	15576	15963	15963	15963	15963
23.5	9064	9449	9846	10228	10792	11350	11909	12257	12796	13334	13865	14846	15923	15963	15963	15963
24	8642	9002	9380	9759	10279	10825	11350	11675	12194	12705	13211	14126	15146	15963	15963	15963
24.5	8219	8559	8923	9277	9772	10294	10792	11112	11600	12081	12559	13422	14382	15441	15963	15963
25	7805	8125	8467	8796	9277	9772	10235	10545	11017	11469	11919	12739	13640	14633	15713	15963
25.5	7385	7687	8015	8324	8785	9265	9693	9991	10429	10858	11287	12050	12900	13838	14862	15959
26	6973	7264	7565	7856	8295	8742	9152	9436	9840	10250	10663	11378	12174	13053	14015	15066
26.5	6569	6833	7119	7392	7813	8228	8616	8884	9265	9653	10047	10703	11451	12278	13186	14182
27	6160	6415	6679	6933	7332	7712	8088	8334	8700	9064	9424	10047	10744	11525	12385	13309
27.5	5762	5995	6236	6473	6853	7206	7557	7788	8125	8472	8818	9386	10033	10776	11581	12450
28	5356	5573	5800	6015	6369	6705	7035	7250	7565	7883	8200	8732	9337	10026	10792	11609
28.5	4954	5147	5364	5556	5886	6203	6509	6705	7001	7302	7589	8088	8657	9289	10005	10776
29	4555	4731	4920	5095	5404	5698	5985	6166	6438	6717	6987	7446	7962	8564	9229	9949
29.5	4152	4308	4481	4644	4920	5192	5462	5626	5886	6139	6381	6807	7279	7839	8452	9134
30 .	3747	3885	4035	4182	4436	4693	4940	5088	5324	5556	5781	6160	6605	7119	7687	8334
36.5	3327	3456	3581	3715	3954	4186	4409	4550	4756	4968	5169	5521	5925	6404	6939	7525
31	2905	3023	3129	3254	3463	3677	3877	3999	4196	4382	4561	4873	5245	5680	6182	6730
31.5	2477	2562	2662	2769	2962	3151	3327	3443	3610	3770	3928	4206	4538	4940	5388	5886
32	2027	2093	2175	2275	2450	2615	2769	2867	3002	3140	3278	3518	3811	4167	4573	5024

River Temperature (°C)	Daily Average River Flow (CFS)															
	9000	9500	10000	11000	12000	14000	16000	19000	22000	2500	28000	31000	35000	40000	45000	50000
15	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963
15.5	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963
16	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963
16.5	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963
17	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963
17.5	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963
18	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963
18.5	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963
19	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963
19.5	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963
20	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963
20.5	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963
21	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963
21.5	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963
22	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963
22.5	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963
23	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963
23.5	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963
24	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963
24.5	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963
25	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963
25.5	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963
26	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963
26.5	15227	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963
27	14296	15374	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963
27.5	13397	14412	15627	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963
28	12493	13460	14618	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963
28.5	11609	12515	13614	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963
29	10727	11600	12626	14940	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963
29.5	9867	10679	11656	13852	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963
30	9007	9772	10695	12784	15146	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963
30.5	8162	8873	9745	11714	13960	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963
31	7324	7997	8818	10679	12807	15923	15963	15963	15963	15963	15963	15963	15963	15963	15963	15963
31.5	6438	7049	7822	9563	11543	14470	15678	15963	15963	15963	15963	15963	15963	15963	15963	15963
32	5521	6087	6781	8373	10220	12947	14084	14382	14382	14382	14382	14382	14382	14382	14382	14382

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN001Q: Process wastewater associated with pulp and paper manufacturing, sanitary wastewater, and stormwater runoff 3/

Such discharge shall be limited and monitored by the permittee as specified below:

	DISCHARGE LIMITATIONS			MONITORING REQUIREMENTS 1/				
EFFLUENT CHARACTERISTIC	Monthly Average	Daily Maximum	Daily Minimum	Monthly Average	Daily Maximum	Measurement Frequency 2/	Sample Type	Seasonal
Pentachlorophenol 4/	-	3.63 lbs/day	-	-	-	Quarterly	Grab	-
Trichlorophenol 4/	-	22.3 lbs/day	-	-	-	Quarterly	Grab	-
Certification – BMP Submittal 5/	-	-	-	-	0 Yes=0; No=1	Quarterly	Not Applicable	-

THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.

2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

3/ See Part IV.A for Best Management Practices (BMP) Plan Requirements.

4/ In lieu of monitoring for these parameters, the permittee may certify non-use of chlorophenolic containing compounds according to the requirements at 40 CFR 430.105 and 40 CFR 430.124 by entering *9 on the discharge monitoring report.

5/ Reporting for this parameter will be in compliance with Part IV.E.9.e.

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN001S: Process wastewater associated with pulp and paper manufacturing, sanitary wastewater, and stormwater runoff 3/

Such discharge shall be limited and monitored by the permittee as specified below:

	DISCHARGE LIMITATIONS			MONITORING REQUIREMENTS 1/				
EFFLUENT CHARACTERISTIC	Monthly Average	Daily Maximum	Daily Minimum	Monthly Average	Daily Maximum	Measurement Frequency 2/	Sample Type	Seasonal
Adsorbable Organic Halides (AOX) 4/	1378 lbs/day	2104 lbs/day	-	-	-	Semi-Annually	Composite	-

THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.

2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

3/ See Part IV.A for Best Management Practices (BMP) Plan Requirements.

4/ EPA Method 1650 shall be used for analysis of AOX. See Part IV.G for Required Test Methods and Minimum Levels.

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN001T: Process wastewater associated with pulp and paper manufacturing, sanitary wastewater, and stormwater runoff 3/

Such discharge shall be limited and monitored by the permittee as specified below:

	DISCHARGE LIMITATIONS					MONITORING REQUIREMENTS 1/		
EFFLUENT CHARACTERISTIC	Monthly Average	Daily Maximum	Daily Minimum	Monthly Average	Daily Maximum	Measurement Frequency 2/	Sample Type	Seasonal
Toxicity, Ceriodaphnia Chronic 4/	-	0 pass(0)/fail(1)	-	-	-	Annually	Composite	-
Toxicity, Pimephales Chronic 4/	-	0 pass(0)/fail(1)	-	-	-	Annually	Composite	-

THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.

2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

3/ See Part IV.A for Best Management Practices (BMP) Plan Requirements.

4/ See Part IV.D for Effluent Toxicity Limitations and Biomonitoring Requirements.

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN001Y: Process wastewater associated with pulp and paper manufacturing, sanitary wastewater, and stormwater runoff 3/

Such discharge shall be limited and monitored by the permittee as specified below:

	DISCHARGE LIMITATIONS					MONITORING REQUIREMENTS 1/		
EFFLUENT CHARACTERISTIC	Monthly Average	Daily Maximum	Daily Minimum	Monthly Average	Daily Maximum	Measurement Frequency 2/	Sample Type	Seasonal
2,3,7,8-Tetrachlorodibenzo-P-Dioxin 4/	-	0.000000176 lbs/day	-	-	REPORT ppq	Annually	Composite	-

THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.

2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

3/ See Part IV.A for Best Management Practices (BMP) Plan Requirements.

4/ The quantity of discharge used to calculate the mass discharged shall be the average of all daily process discharges occurring during the past 12 months of mill operations. Zero process-discharge days shall not be used in the calculation of daily average flow.

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN0051: Landfill leachate, ash pond overflow, boiler blowdown, demineralizer wastewater, stormwater runoff, and process wastewater from the Saltwell Chip Mill, including wet-deck log storage wastewater from DSN05A1 3/

Such discharge shall be limited and monitored by the permittee as specified below:

	DISCHARGE LIMITATIONS					MONITORING REQUIREMENTS 1/		
EFFLUENT CHARACTERISTIC	Monthly Average	Daily Maximum	Daily Minimum	Monthly Average	Daily Maximum	Measurement Frequency 2/	Sample Type	Seasonal
BOD, 5-Day (20 Deg. C)	REPORT lbs/day	REPORT lbs/day	-	-	-	3X Weekly test	Composite	-
pH	-	-	6.0 S.U.	-	9.0 S.U.	Monthly	Grab	-
Solids, Total Suspended	REPORT lbs/day	REPORT lbs/day	-	-	-	3X Weekly test	Composite	-
Oil & Grease	-	-	-	-	15.0 mg/l	Monthly	Grab	-
Flow, In Conduit or Thru Treatment Plant	-	REPORT MGD	-	-	-	3X Weekly test	Instantaneous	-

THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

DEBRIS IS DEFINED AS WOODY MTAERIAL SUCH AS BARK, TWIGS, BRANCHES, HEARTWOOD, OR SAPWOOD THAT ORIGINATES IN THE PROCESS AND WILL NOT PASS THROUGH A 2.54 CM (1.0 INCH) DIAMETER ROUND OPENING.

1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.

2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

3/ See Part IV.A for Best Management Practices (BMP) Plan Requirements.

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN05A1: Contact water and storm water runoff from wet-deck log storage 3/

Such discharge shall be limited and monitored by the permittee as specified below:

	DISCHARGE LIMITATIONS			MONITORING REQUIREMENTS 1/				
EFFLUENT CHARACTERISTIC	Monthly Average	Daily Maximum	Daily Minimum	Monthly Average	Daily Maximum	Measurement Frequency 2/	Sample Type	Seasonal
pH	-	-	6.0 S.U.	-	9.0 S.U.	Monthly	Grab	-
Flow, In Conduit or Thru Treatment Plant	-	REPORT MGD	-	-	-	Monthly	Instantaneous	-

1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.

2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

3/ Samples collected to comply with the monitoring requirements for pH, and Flow specified above shall be collected at the following location: culvert pipe at 32° 27' 10.6'', -87° 57' 55.6".

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN007S, DSN008S: Stormwater runoff from log truck entrance roads 3/ 4/ 5/
DSN009S, DSN010S: Stormwater runoff from the bark pile and surrounding areas 3/ 4/ 6/

Such discharge shall be limited and monitored by the permittee as specified below:

	DISCHARGE LIMITATIONS					MONITORING REQUIREMENTS 1/		
EFFLUENT CHARACTERISTIC	Monthly Average	Daily Maximum	Daily Minimum	Monthly Average	Daily Maximum	Measurement Frequency 2/	Sample Type	Seasonal
pH	-	-	REPORT S.U.	-	REPORT S.U.	Semi-Annually	Grab	-
Solids, Total Suspended	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	-
Oil & Grease	-	-	-	-	15 mg/l	Semi-Annually	Grab	-
Flow, In Conduit or Thru Treatment Plant	-	REPORT MGD	-	-	-	Semi-Annually	Estimate	-

THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.

2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

3/ See Part IV.A for Best Management Practices (BMP) Plan Requirements.

4/ See Part IV.B for Stormwater Measurement and Sampling Requirements.

5/ DSN007 is considered representative of DSN007 and DSN008.

6/ DSN009 is considered representative of DSN009 and DSN010.

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN006Y: Stormwater runoff from the borrow pit area 3/ 4/

Such discharge shall be limited and monitored by the permittee as specified below:

	DISCHARGE LIMITATIONS					MONITORING REQUIREMENTS 1/		
EFFLUENT CHARACTERISTIC	Monthly Average	Daily Maximum	Daily Minimum	Monthly Average	Daily Maximum	Measurement Frequency 2/	Sample Type	Seasonal
pH	-	-	REPORT S.U.	-	REPORT S.U.	Annually	Grab	-
Solids, Total Suspended	-	-	-	-	REPORT mg/l	Annually	Grab	-
Oil & Grease	-	-	-	-	15 mg/l	Annually	Grab	-
Flow, In Conduit or Thru Treatment Plant	-	REPORT MGD	-	-	-	Annually	Estimate	-

THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.

2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

3/ See Part IV.A for Best Management Practices (BMP) Plan Requirements.

4/ See Part IV.B for Stormwater Measurement and Sampling Requirements.

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN01AS: A-line (Hardwood) Bleach plant internal requirements. 3/

Such discharge shall be limited and monitored by the permittee as specified below:

	DISCHARGE LIMITATIONS					MONITORING REQUIREMENTS 1/		
EFFLUENT CHARACTERISTIC	Monthly Average	Daily Maximum	Daily Minimum	Monthly Average	Daily Maximum	Measurement Frequency 2/	Sample Type	Seasonal
Chloroform	6.38 lbs/day	10.671 lbs/day	-	-	-	Semi-Annually	Composite 6/	-
2,4,6-Trichlorophenol	-	-	-	-	2.4999 ug/l	Semi-Annually	Composite	-
2,3,7,8-Tetrachlorodibenzo-P-Dioxin	-	-	-	-	9.9999 pg/l	Semi-Annually	Composite	-
2,3,7,8 Tetrachlorodibenzofuran (TCDF)	-	-	-	-	31.9 pg/l	Semi-Annually	Composite	-
Pentachlorophenol	-	-	-	-	4.9999 ug/l	Semi-Annually	Composite	-
Flow, In Conduit or Thru Treatment Plant	REPORT MGD	REPORT MGD	-	-	-	Semi-Annually	Calculated	-
3,4,6-Trichloroguaiacol	-	-	-	-	2.4999 ug/l	Semi-Annually	Composite	-
3,4,6-Trichlorocatechol	-	-	-	-	4.9999 ug/l	Semi-Annually	Composite	-

1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: A-1 sample filtrate from D0 Seal Tank (acid stage); A-2 sample filtrate from EOP Seal Tank (alkaline stage); A-3 sample filtrate from D1 Seal Tank (acid stage). Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of six (6) equal volume grab samples collected over equal time intervals (one collected every 4 hours for 24 hours). All composite samples shall be collected for a total period of discharge not to exceed 24 hours. This process shall be repeated at all sampling points for compliance at this outfall. The six samples collected from each bleach line shall be composited and analyzed. The pounds per day of chloroform shall be determined for each line based on the volume of flow for that line. The total pounds per day for the three lines shall be reported on the DMR.

2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

3/ These limitations apply to the bleach plant wastewater prior to treatment.

4/ See Part IV.G for Required Test Methods and Minimum Levels.

5/ The flow measurement shall be a calculated value based on a material balance. The permittee shall maintain these calculations and assumptions with the monitoring records for each monitoring point.

6/ Six (6) grab samples, 40 mL each, for chloroform shall be collected over a 24-hour period (one collected every 4 hours for 24 hours) at each sampling location noted in footnote 1/ above. Grab samples are to be obtained from each acid and alkaline sewer line. Grab samples collected from alkaline sewer lines may be combined by flow weighted composite into one sample for analysis in the lab. Grab samples collected from acid sewer lines may be composited in the same manner. If separate acid and alkaline sewer lines do not exist, then sample collected shall be obtained at the nearest accessible point from the bleach plant. Samples are to be cooled during and after collection and are to be collected in such manner that the samples do not contain entrained air (bubbles).

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN01AS (continued): A-line (Hardwood) Bleach plant internal requirements. 3/

Such discharge shall be limited and monitored by the permittee as specified below:

	DISCHARGE LIMITATIONS					MONITORING REQUIREMENTS 1/		
EFFLUENT CHARACTERISTIC	Monthly Average	Daily Maximum	Daily Minimum	Monthly Average	Daily Maximum	Measurement Frequency 2/	Sample Type	Seasonal
2,4,5-Trichlorophenol	-	-	-	-	2.4999 ug/l	Semi-Annually	Composite	-
3,4,5-Trichloroguaiacol	-	-	-	-	2.4999 ug/l	Semi-Annually	Composite	-
3,4,5 Trichlorocatechol	-	-	-	-	4.999 ug/l	Semi-Annually	Composite	-
Tetrachloroguaiacol	-	-	-	-	4.9999 ug/l	Semi-Annually	Composite	-
Tetrachlorocatechol	-	-	-	-	4.9999 ug/l	Semi-Annually	Composite	-
Trichlorosyringol	-	-	-	-	2.4999 ug/l	Semi-Annually	Composite	-
4,5,6-Trichloroguaiacol	-	-	-	-	2.4999 ug/l	Semi-Annually	Composite	-
2,3,4,6-Tetrachlorophenol	-	-	-	-	2.4999 ug/l	Semi-Annually	Composite	-

1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: A-1 sample filtrate from D0 Seal Tank (acid stage); A-2 sample filtrate from EOP Seal Tank (alkaline stage); A-3 sample filtrate from D1 Seal Tank (acid stage). Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of six (6) equal volume grab samples collected over equal time intervals (one collected every 4 hours for 24 hours). All composite samples shall be collected for a total period of discharge not to exceed 24 hours. This process shall be repeated at all sampling points for compliance at this outfall. The six samples collected from each bleach line shall be composited and analyzed. The pounds per day of chloroform shall be determined for each line based on the volume of flow for that line. The total pounds per day for the three lines shall be reported on the DMR.

2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

3/ These limitations apply to the bleach plant wastewater prior to treatment.

4/ See Part IV.G for Required Test Methods and Minimum Levels.

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN01BS: B-Line (Softwood) Bleach Plant internal requirements 3/

Such discharge shall be limited and monitored by the permittee as specified below:

	DISCHARGE LIMITATIONS			MONITORING REQUIREMENTS 1/				
EFFLUENT CHARACTERISTIC	Monthly Average	Daily Maximum	Daily Minimum	Monthly Average	Daily Maximum	Measurement Frequency 2/	Sample Type	Seasonal
Chloroform	2.5 lbs/day	4.26 lbs/day	-	-	-	Semi-Annually	Composite 6/	-
2,4,6-Trichlorophenol	-	-	-	-	2.4999 ug/l	Semi-Annually	Composite	-
2,3,7,8-Tetrachlorodibenzo-P-Dioxin	-	-	-	-	9.9999 pg/l	Semi-Annually	Composite	-
2,3,7,8 Tetrachlorodibenzofuran (TCDF)	-	-	-	-	31.9 pg/l	Semi-Annually	Composite	-
Pentachlorophenol	-	-	-	-	4.9999 ug/l	Semi-Annually	Composite	-
Flow, In Conduit or Thru Treatment Plant	REPORT MGD	REPORT MGD	-	-	-	Semi-Annually	Calculated	-
3,4,6-Trichloroguaiacol	-	-	-	-	2.4999 ug/l	Semi-Annually	Composite	-
3,4,6-Trichlorocatechol	-	-	-	-	4.9999 ug/l	Semi-Annually	Composite	-

1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: A-1 sample filtrate from D0 Seal Tank (acid stage); A-2 sample filtrate from EOP Seal Tank (alkaline stage); A-3 sample filtrate from D1 Seal Tank (acid stage). Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of six (6) equal volume grab samples collected over equal time intervals (one collected every 4 hours for 24 hours). All composite samples shall be collected for a total period of discharge not to exceed 24 hours. This process shall be repeated at all sampling points for compliance at this outfall. The six samples collected from each bleach line shall be composited and analyzed. The pounds per day of chloroform shall be determined for each line based on the volume of flow for that line. The total pounds per day for the three lines shall be reported on the DMR.

2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

3/ These limitations apply to the bleach plant wastewater prior to treatment.

4/ See Part IV.G for Required Test Methods and Minimum Levels.

5/ The flow measurement shall be a calculated value based on a material balance. The permittee shall maintain these calculations and assumptions with the monitoring records for each monitoring point.

6/ Six (6) grab samples, 40 mL each, for chloroform shall be collected over a 24-hour period (one collected every 4 hours for 24 hours) at each sampling location noted in footnote 1/ above. Grab samples are to be obtained from each acid and alkaline sewer line. Grab samples collected from alkaline sewer lines may be combined by flow weighted composite into one sample for analysis in the lab. Grab samples collected from acid sewer lines may be composited in the same manner. If separate acid and alkaline sewer lines do not exist, then sample collected shall be obtained at the nearest accessible point from the bleach plant. Samples are to be cooled during and after collection and are to be collected in such manner that the samples do not contain entrained air (bubbles).

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN01BS (continued): B-Line (Softwood) Bleach Plant internal requirements 3/

Such discharge shall be limited and monitored by the permittee as specified below:

	DISCHARGE LIMITATIONS			MONITORING REQUIREMENTS 1/				
EFFLUENT CHARACTERISTIC	Monthly Average	Daily Maximum	Daily Minimum	Monthly Average	Daily Maximum	Measurement Frequency 2/	Sample Type	Seasonal
2,4,5-Trichlorophenol	-	-	-	-	2.4999 ug/l	Semi-Annually	Composite	-
3,4,5-Trichloroguaiacol	-	-	-	-	2.4999 ug/l	Semi-Annually	Composite	-
3,4,5 Trichlorocatechol	-	-	-	-	4.9999 ug/l	Semi-Annually	Composite	-
Tetrachloroguaiacol	-	-	-	-	4.9999 ug/l	Semi-Annually	Composite	-
Tetrachlorocatechol	-	-	-	-	4.9999 ug/l	Semi-Annually	Composite	-
Trichlorosyringol	-	-	-	-	2.4999 ug/l	Semi-Annually	Composite	-
4,5,6-Trichloroguaiacol	-	-	-	-	2.4999 ug/l	Semi-Annually	Composite	-
2,3,4,6-Tetrachlorophenol	-	-	-	-	2.4999 ug/l	Semi-Annually	Composite	-

1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: A-1 sample filtrate from D0 Seal Tank (acid stage); A-2 sample filtrate from EOP Seal Tank (alkaline stage); A-3 sample filtrate from D1 Seal Tank (acid stage). Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of six (6) equal volume grab samples collected over equal time intervals (one collected every 4 hours for 24 hours). All composite samples shall be collected for a total period of discharge not to exceed 24 hours. This process shall be repeated at all sampling points for compliance at this outfall. The six samples collected from each bleach line shall be composited and analyzed. The pounds per day of chloroform shall be determined for each line based on the volume of flow for that line. The total pounds per day for the three lines shall be reported on the DMR.

2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

3/ These limitations apply to the bleach plant wastewater prior to treatment.

4/ See Part IV.G for Required Test Methods and Minimum Levels.

B. DISCHARGE MONITORING AND RECORD KEEPING REQUIREMENTS

1. Representative Sampling

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge and shall be in accordance with the provisions of this permit.

2. Test Procedures

For the purpose of reporting and compliance, permittees shall use one of the following procedures:

a. For parameters with an EPA established Minimum Level (ML), report the measured value if the analytical result is at or above the ML and report "0" for values below the ML. Test procedures for the analysis of pollutants shall conform to 40 CFR Part 136 and guidelines published pursuant to Section 304(h) of the FWPCA, 33 U.S.C. Section 1314(h). If more than one method for analysis of a substance is approved for use, a method having a minimum level lower than the permit limit shall be used. If the minimum level of all methods is higher than the permit limit, the method having the lowest minimum level shall be used and a report of less than the minimum level shall be reported as zero and will constitute compliance; however, should EPA approve a method with a lower minimum level during the term of this permit the permittee shall use the newly approved method.

b. For pollutants parameters without an established ML, an interim ML may be utilized. The interim ML shall be calculated as 3.18 times the Method Detection Level (MDL) calculated pursuant to 40 CFR Part 136, Appendix B.

Permittees may develop an effluent matrix-specific ML, where an effluent matrix prevents attainment of the established ML. However, a matrix specific ML shall be based upon proper laboratory method and technique. Matrix-specific MLs must be approved by the Department, and may be developed by the permittee during permit issuance, reissuance, modification, or during compliance schedule.

In either case the measured value should be reported if the analytical result is at or above the ML and "0" reported for values below the ML.

c. For parameters without an EPA established ML, interim ML, or matrix-specific ML, a report of less than the detection limit shall constitute compliance if the detection limit of all analytical methods is higher than the permit limit using the most sensitive EPA approved method. For the purpose of calculating a monthly average, "0" shall be used for values reported less than the detection limit.

The Minimum Level utilized for procedures A and B above shall be reported on the permittee's DMR. When an EPA approved test procedure for analysis of a pollutant does not exist, the Director shall approve the procedure to be used.

3. Recording of Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

a. The facility name and location, point source number, date, time and exact place of sampling;

b. The name(s) of person(s) who obtained the samples or measurements;

c. The dates and times the analyses were performed;

d. The name(s) of the person(s) who performed the analyses;

e. The analytical techniques or methods used, including source of method and method number; and

f. The results of all required analyses.

4. Records Retention and Production

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 the permit, and records of all data used to complete the above reports or the application for this permit, for a period of at least three years from the date of the sample measurement, report or application. This period may be extended by request of the Director at any time. If litigation or other enforcement action, under the AWPCA and/or the FWPCA, is ongoing which involves any of the above records, the records shall be kept until the litigation is resolved. Upon the written request of the Director or his designee, the permittee shall provide the Director with a copy of any record required to be retained by this paragraph. Copies of these records shall not be submitted unless requested.

All records required to be kept for a period of three years shall be kept at the permitted facility or an alternate location approved by the Department in writing and shall be available for inspection.

5. Monitoring Equipment and Instrumentation

All equipment and instrumentation used to determine compliance with the requirements of this permit shall be installed, maintained, and calibrated in accordance with the manufacturer's instructions or, in the absence of manufacturer's instructions, in accordance with accepted practices. The permittee shall develop and maintain quality assurance procedures to ensure proper operation and maintenance of all equipment and instrumentation. The quality assurance procedures shall include the proper use, maintenance, and installation, when appropriate, of monitoring equipment at the plant site.

C. DISCHARGE REPORTING REQUIREMENTS

1. Reporting of Monitoring Requirements

a. The permittee shall conduct the required monitoring in accordance with the following schedule:

MONITORING REQUIRED MORE FREQUENTLY THAN MONTHLY AND MONTHLY shall be conducted during the first full month following the effective date of coverage under this permit and every month thereafter.

QUARTERLY MONITORING shall be conducted at least once during each calendar quarter. Calendar quarters are the periods of January through March, April through June, July through September, and October through December. The permittee shall conduct the quarterly monitoring during the first complete calendar quarter following the effective date of this permit and is then required to monitor once during each quarter thereafter. Quarterly monitoring may be done anytime during the quarter, unless restricted elsewhere in this permit, but it should be submitted with the last DMR due for the quarter, i.e., (March, June, September and December DMR's).

SEMIANNUAL MONITORING shall be conducted at least once during the period of January through June and at least once during the period of July through December. The permittee shall conduct the semiannual monitoring during the first complete calendar semiannual period following the effective date of this permit and is then required to monitor once during each semiannual period thereafter. Semiannual monitoring may be done anytime during the semiannual period, unless restricted elsewhere in this permit, but it should be submitted with the last DMR for the month of the semiannual period, i.e. (June and December DMR's).

ANNUAL MONITORING shall be conducted at least once during the period of January through December. The permittee shall conduct the annual monitoring during the first complete calendar annual period following the effective date of this permit and is then required to monitor once during each annual period thereafter. Annual monitoring may be done anytime during the year, unless restricted elsewhere in this permit, but it should be submitted with the December DMR.

b. The permittee shall submit discharge monitoring reports (DMRs) on the forms provided by the Department and in accordance with the following schedule:

REPORTS OF MORE FREQUENTLY THAN MONTHLY AND MONTHLY TESTING shall be submitted on a **monthly** basis. The first report is due on the **28th day of (MONTH, YEAR).** The reports shall be submitted so that they are received by the Department no later than the 28th day of the month following the reporting period.

REPORTS OF QUARTERLY TESTING shall be submitted on a **quarterly** basis. The first report is due on the **28th day of [Month, Year].** The reports shall be submitted so that they are received by the Department no later than the 28th day of the month following the reporting period.

REPORTS OF SEMIANNUAL TESTING shall be submitted on a semiannual basis. The reports are due on the 28th day of JANUARY and the 28th day of JULY. The reports shall be submitted so that they are received by the Department no later than the 28th day of the month following the reporting period.

REPORTS OF ANNUAL TESTING shall be submitted on an annual basis. The first report is due on the 28th day of JANUARY. The reports shall be submitted so that they are received by the Department no later than the 28th day of the month following the reporting period.

c. Except as allowed by Provision I.C.1.c.(1) or (2), the permittee shall submit all Discharge Monitoring Reports (DMRs) required by Provision I.C.1.b by utilizing the Department's web-based Electronic Environmental (E2) Reporting System.

(1) If the permittee is unable to complete the electronic submittal of DMR data due to technical problems originating with the Department's E2 Reporting system (this could include entry/submittal issues with an entire set of DMRs or individual parameters), the permittee is not relieved of their obligation to submit DMR data to the Department by the date specified in Provision I.C.1.b, unless otherwise directed by the Department.

If the E2 Reporting System is down on the 28th day of the month in which the DMR is due or is down for an extended period of time, as determined by the Department, when a DMR is required to be submitted, the permittee may submit the data in an alternate manner and format acceptable to the Department. Preapproved alternate acceptable methods include faxing, e-mailing, mailing, or hand-delivery of data such that they are received by the required reporting date. Within 5 calendar days of the E2 Reporting System resuming operation, the permittee shall enter the data into the E2 Reporting System, unless an alternate timeframe is approved by the Department. An attachment should be included with the E2 DMR submittal verifying the original submittal date (date of the fax, copy of the dated e-mail, or hand-delivery stamped date), if applicable.

(2) The permittee may submit a request to the Department for a temporary electronic reporting waiver for DMR submittals. The waiver request should include the permit number; permittee name; facility/site name; facility address; name, address, and contact information for the responsible official or duly authorized representative; a detailed statement regarding the basis for requesting such a waiver; and the duration for which the waiver is requested. Approved electronic reporting waivers are not transferrable.

Permittees with an approved electronic reporting waiver for DMRs may submit hard copy DMRs for the period that the approved electronic reporting waiver request is effective. The permittee shall submit the Department-approved DMR forms to the address listed in Provision I.C.1.e.

(3) If a permittee is allowed to submit a hard copy DMR, the DMR must be legible and bear an original signature. Photo and electronic copies of the signature are not acceptable and shall not satisfy the reporting requirements of this permit.

(4) If the permittee, using approved analytical methods as specified in Provision I.B.2, monitors any discharge from a point source for a limited substance identified in Provision I.A. of this permit more frequently than required by this permit, the results of such monitoring shall be included in the calculation and reporting of values on the DMR and the increased frequency shall be indicated on the DMR.

(5) In the event no discharge from a point source identified in Provision I.A. of this permit and described more fully in the permittee's application occurs during a monitoring period, the permittee shall report "No Discharge" for such period on the appropriate DMR.

d. All reports and forms required to be submitted by this permit, the AWPCA and the Department's Rules, shall be electronically signed (or, if allowed by the Department, traditionally signed) by a "responsible official" of the permittee as defined in ADEM Administrative Code Rule 335-6-6-.09 or a "duly authorized representative" of such official as defined in ADEM Administrative Code Rule 335-6-6-.09 and shall bear 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 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."

e. Discharge Monitoring Reports required by this permit, the AWPCA, and the Department's Rules that are being submitted in hard copy shall be addressed to:

Alabama Department of Environmental Management
Permits and Services Division
Environmental Data Section
Post Office Box 301463
Montgomery, Alabama 36130-1463

Certified and Registered Mail containing Discharge Monitoring Reports shall be addressed to:

Alabama Department of Environmental Management
Permits and Services Division
Environmental Data Section
1400 Coliseum Boulevard
Montgomery, Alabama 36110-2400

f. All other correspondence and reports required to be submitted by this permit, the AWPCA, and the Department's Rules shall be addressed to:

Alabama Department of Environmental Management
Water Division
Post Office Box 301463
Montgomery, Alabama 36130-1463

Certified and Registered Mail shall be addressed to:

Alabama Department of Environmental Management
Water Division
1400 Coliseum Boulevard
Montgomery, Alabama 36110-2400

g. If this permit is a re-issuance, then the permittee shall continue to submit DMRs in accordance with the requirements of their previous permit until such time as DMRs are due as discussed in Part I.C.1.b above.

2. Noncompliance Notification

a. 24-Hour Noncompliance Reporting

The permittee shall report to the Director, within 24-hours of becoming aware of the noncompliance, any noncompliance which may endanger health or the environment. This shall include but is not limited to the following circumstances:

(1) does not comply with any daily minimum or maximum discharge limitation for an effluent characteristic specified in Provision I. A. of this permit which is denoted by an "(X)";

(2) threatens human health or welfare, fish or aquatic life, or water quality standards;

(3) does not comply with an applicable toxic pollutant effluent standard or prohibition established under Section 307(a) of the FWPCA, 33 U.S.C. Section 1317(a);

(4) contains a quantity of a hazardous substance which has been determined may be harmful to public health or welfare under Section 311(b)(4) of the FWPCA, 33 U.S.C. Section 1321(b)(4);

(5) exceeds any discharge limitation for an effluent characteristic as a result of an unanticipated bypass or upset; and

(6) is an unpermitted direct or indirect discharge of a pollutant to a water of the state (unpermitted discharges properly reported to the Department under any other requirement are not required to be reported under this provision).

The permittee shall orally report the occurrence and circumstances of such discharge to the Director within 24-hours after the permittee becomes aware of the occurrence of such discharge. In addition to the oral report, the permittee shall submit to the Director or Designee a written report as provided in Part I.C.2.c no later than five (5) days after becoming aware of the occurrence of such discharge.

b. If for any reason, the permittee's discharge does not comply with any limitation of this permit, the permittee shall submit to the Director or Designee a written report as provided in Part I.C.2.c below, such report shall be submitted with the next Discharge Monitoring Report required to be submitted by Part I.C.1 of this permit after becoming aware of the occurrence of such noncompliance.

c. Any written report required to be submitted to the Director or Designee by Part I.C.2 a. or b. shall be submitted using a Noncompliance Notification Form (ADEM Form 421) available on the Department's website (http://adem.alabama.gov/DeptForms/Form421.pdf) and include the following information:

(1) A description of the discharge and cause of noncompliance;

(2) The period of noncompliance, including exact dates and times or, if not corrected, the anticipated time the noncompliance is expected to continue; and

(3) A description of the steps taken and/or being taken to reduce or eliminate the noncomplying discharge and to prevent its recurrence.

D. OTHER REPORTING AND NOTIFICATION REQUIREMENTS

1. Anticipated Noncompliance

The permittee shall give the Director written advance notice of any planned changes or other circumstances regarding a facility which may result in noncompliance with permit requirements.

2. Termination of Discharge

The permittee shall notify the Director, in writing, when all discharges from any point source(s) identified in Provision I. A. of this permit have permanently ceased. This notification shall serve as sufficient cause for instituting procedures for modification or termination of the permit.

3. Updating Information

a. The permittee shall inform the Director of any change in the permittee's mailing address, telephone number or in the permittee's designation of a facility contact or office having the authority and responsibility to prevent and abate violations of the AWPCA, the Department's Rules, and the terms and conditions of this permit, in writing, no later than ten (10) days after such change. Upon request of the Director or his designee, the permittee shall furnish the Director with an update of any information provided in the permit application.

b. If 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 with a written explanation for the mistake and/or omission.

4. Duty to Provide Information

The permittee shall furnish to the Director, within a reasonable time, any information which the Director or his designee may request to determine whether cause exists for modifying, revoking and re-issuing, suspending, or terminating this permit, in whole or in part, or to determine compliance with this permit.

5. Cooling Water and Boiler Water Additives

a. The permittee shall notify the Director in writing not later than thirty (30) days prior to instituting the use of any biocide corrosion inhibitor or chemical additive in a cooling or boiler system, not identified in the application for this permit, from which discharge is allowed by this permit. Notification is not required for additives that do not contain a heavy metal(s) as an active ingredient and that pass through a wastewater treatment system prior to discharge nor is notification required for additives that should not reasonably be expected to cause the cooling water or boiler water to exhibit toxicity as determined by analysis of manufacturer's data or testing by the permittee. Such notification shall include:

(1) name and general composition of biocide or chemical;

(2) 96-hour median tolerance limit data for organisms representative of the biota of the waterway into which the discharge will ultimately reach;

(2) quantities to be used;

(3) frequencies of use;

(4) proposed discharge concentrations; and

(6) EPA registration number, if applicable.

b. The use of a biocide or additive containing tributyl tin, tributyl tin oxide, zinc, chromium or related compounds in cooling or boiler system(s), from which a discharge regulated by this permit occurs, is prohibited except as exempted below. The use of a biocide or additive containing zinc, chromium or related compounds may be used in special circumstances if (1) the permit contains limits for these substances, or (2) the applicant demonstrates during the application process that the use of zinc, chromium or related compounds as a biocide or additive will not pose a reasonable potential to violate the applicable State water quality standards for these substances. The use of any additive, not identified in this permit or in the application for this permit or not exempted from notification under this permit is prohibited, prior to a determination by the Department that permit modification to control discharge of the additive is not required or prior to issuance of a permit modification controlling discharge of the additive.

6. Permit Issued Based On Estimated Characteristics

   a. If this permit was issued based on estimates of the characteristics of a process discharge reported on an EPA NPDES Application Form 2D (EPA Form 3510-2D), the permittee shall complete and submit an EPA NPDES Application Form 2C (EPA Form 3510-2C) no later than two years after the date that discharge begins. Sampling required for completion of the Form 2C shall occur when a discharge(s) from the process(s) causing the new or increased discharge is occurring. If this permit was issued based on estimates concerning the composition of a stormwater discharge(s), the permittee shall perform the sampling required by EPA NPDES Application Form 2F (EPA Form 3510-2F) no later than one year after the industrial activity generating the stormwater discharge has been fully initiated.

   b. This permit shall be reopened if required to address any new information resulting from the completion and submittal of the Form 2C and or 2F.

E. SCHEDULE OF COMPLIANCE

1. The permittee shall achieve compliance with the discharge limitations specified in Provision I. A. in accordance with the following schedule:

COMPLIANCE SHALL BE ATTAINED ON THE EFFECTIVE DATE OF THIS PERMIT

2. No later than 14 calendar days following a date identified in the above schedule of compliance, the permittee shall submit either a report of progress or, in the case of specific actions being required by identified dates, a written notice of compliance or noncompliance. In the latter case, the notice shall include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirement.

PART II OTHER REQUIREMENTS, RESPONSIBILITIES, AND DUTIES

A. OPERATIONAL AND MANAGEMENT REQUIREMENTS

1. Facilities Operation and Maintenance

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 the permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities only when necessary to achieve compliance with the conditions of the permit.

2. Best Management Practices

a. Dilution water shall not be added to achieve compliance with discharge limitations except when the Director or his designee has granted prior written authorization for dilution to meet water quality requirements.

b. The permittee shall prepare, implement, and maintain a Spill Prevention, Control and Countermeasures (SPCC) Plan in accordance with 40 C.F.R. Section 112 if required thereby.

c. The permittee shall prepare, submit for approval and implement a Best Management Practices (BMP) Plan for containment of any or all process liquids or solids, in a manner such that these materials do not present a significant potential for discharge, if so required by the Director or his designee. When submitted and approved, the BMP Plan shall become a part of this permit and all requirements of the BMP Plan shall become requirements of this permit.

3. Spill Prevention, Control, and Management

The permittee shall provide spill prevention, control, and/or management sufficient to prevent any spills of pollutants from entering a water of the state or a publicly or privately owned treatment works. Any containment system used to implement this requirement shall be constructed of materials compatible with the substance(s) contained and which shall prevent the contamination of groundwater and such containment system shall be capable of retaining a volume equal to 110 percent of the capacity of the largest tank for which containment is provided.

B. OTHER RESPONSIBILITIES

1. Duty to Mitigate Adverse Impacts

The permittee shall promptly take all reasonable steps to mitigate and minimize or prevent any adverse impact on human health or the environment resulting from noncompliance with any discharge limitation specified in Provision I. A. of this permit, including such accelerated or additional monitoring of the discharge and/or the receiving waterbody as necessary to determine the nature and impact of the noncomplying discharge.

2. Right of Entry and Inspection

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

a. enter upon the permittee's premises where a regulated facility or activity or point source is located or conducted, or where records must be kept under the conditions of the permit;

b. have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;

c. inspect any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under the permit; and

d. sample or monitor, for the purposes of assuring permit compliance or as otherwise authorized by the AWPCA, any substances or parameters at any location.

C. BYPASS AND UPSET

1. Bypass

a. Any bypass is prohibited except as provided in b. and c. below:

b. A bypass is not prohibited if:

(1) It does not cause any discharge limitation specified in Provision I. A. of this permit to be exceeded;

(2) It enters the same receiving stream as the permitted outfall; and

(3) It is necessary for essential maintenance of a treatment or control facility or system to assure efficient operation of such facility or system.

c. A bypass is not prohibited and need not meet the discharge limitations specified in Provision I. A. of this permit if:

(1) It is unavoidable to prevent loss of life, personal injury, or severe property damage;

(2) There are 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 adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance); and

(3) The permittee submits a written request for authorization to bypass to the Director at least ten (10) days prior to the anticipated bypass (if possible), the permittee is granted such authorization, and the permittee complies with any conditions imposed by the Director to minimize any adverse impact on human health or the environment resulting from the bypass.

d. The permittee has the burden of establishing that each of the conditions of Provision II.C.1.b. or c. have been met to qualify for an exception to the general prohibition against bypassing contained in a. and an exemption, where applicable, from the discharge limitations specified in Provision I. A. of this permit.

2. Upset

a. A discharge which results from an upset need not meet the discharge limitations specified in Provision I. A. of this permit if:

(1) No later than 24-hours after becoming aware of the occurrence of the upset, the permittee orally reports the occurrence and circumstances of the upset to the Director or his designee; and

(2) No later than five (5) days after becoming aware of the occurrence of the upset, the permittee furnishes the Director with evidence, including properly signed, contemporaneous operating logs, or other relevant evidence, demonstrating that (i) an upset occurred; (ii) the permittee can identify the specific cause(s) of the upset; (iii) the permittee's facility was being properly operated at the time of the upset; and (iv) the permittee promptly took all reasonable steps to minimize any adverse impact on human health or the environment resulting from the upset.

b. The permittee has the burden of establishing that each of the conditions of Provision II. C.2.a. of this permit have been met to qualify for an exemption from the discharge limitations specified in Provision I.A. of this permit.

D. DUTY TO COMPLY WITH PERMIT, RULES, AND STATUTES

1. Duty to Comply

a. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the AWPCA and the FWPCA and is grounds for enforcement action, for permit termination, revocation and reissuance, suspension, modification; or denial of a permit renewal application.

b. The necessity to halt or reduce production or other activities in order to maintain compliance with the conditions of the permit shall not be a defense for a permittee in an enforcement action.

c. The discharge of a pollutant from a source not specifically identified in the permit application for this permit and not specifically included in the description of an outfall in this permit is not authorized and shall constitute noncompliance with this permit.

d. The permittee shall take all reasonable steps, including cessation of production or other activities, to minimize or prevent any violation of this permit or to minimize or prevent any adverse impact of any permit violation.

e. Nothing in this permit shall be construed to preclude and negate the permittee's responsibility or liability to apply for, obtain, or comply with other ADEM, Federal, State, or Local Government permits, certifications, licenses, or other approvals.

2. Removed Substances

Solids, sludges, filter backwash, or any other pollutant or other waste removed in the course of treatment or control of wastewaters shall be disposed of in a manner that complies with all applicable Department Rules.

3. Loss or Failure of Treatment Facilities

Upon the loss or failure of any treatment facilities, including but not limited to the loss or failure of the primary source of power of the treatment facility, the permittee shall, where necessary to maintain compliance with the discharge limitations specified in Provision I. A. of this permit, or any other terms or conditions of this permit, cease, reduce, or otherwise control production and/or all discharges until treatment is restored. If control of discharge during loss or failure of the primary source of power is to be accomplished by means of alternate power sources, standby generators, or retention of inadequately treated effluent, the permittee must furnish to the Director within six months a certification that such control mechanisms have been installed.

4. Compliance with Statutes and Rules

a. This permit has been issued under ADEM Administrative Code, Chapter 335-6-6. All provisions of this chapter, that are applicable to this permit, are hereby made a part of this permit. A copy of this chapter may be obtained for a small charge from the Office of General Counsel, Alabama Department of Environmental Management, 1400 Coliseum Blvd., Montgomery, AL 36130.

b. This permit does not authorize the noncompliance with or violation of any Laws of the State of Alabama or the United States of America or any regulations or rules implementing such laws. FWPCA, 33 U.S.C. Section 1319, and Code of Alabama 1975, Section 22-22-14.

E. PERMIT TRANSFER, MODIFICATION, SUSPENSION, REVOCATION, AND REISSUANCE

1. Duty to Reapply or Notify of Intent to Cease Discharge

a. If the permittee intends to continue to discharge beyond the expiration date of this permit, the permittee shall file a complete permit application for reissuance of this permit at least 180 days prior to its expiration. If the permittee does not intend to continue discharge beyond the expiration of this permit, the permittee shall submit written notification of this intent which shall be signed by an individual meeting the signatory requirements for a permit application as set forth in ADEM Administrative Code Rule 335-6-6-.09.

b. Failure of the permittee to apply for reissuance at least 180 days prior to permit expiration will void the automatic continuation of the expiring permit provided by ADEM Administrative Code Rule 335-6-6-.06 and should the permit not be reissued for any reason any discharge after expiration of this permit will be an unpermitted discharge.

2. Change in Discharge

a. The permittee shall apply for a permit modification at least 180 days in advance of any facility expansion, production increase, process change, or other action that could result in the discharge of additional pollutants or increase the quantity of a discharged pollutant such that existing permit limitations would be exceeded or that could result in an additional discharge point. This requirement applies to pollutants that are or that are not subject to discharge limitations in this permit. No new or increased discharge may begin until the Director has authorized it by issuance of a permit modification or a reissued permit.

b. The permittee shall notify the Director as soon as it is known or there is reason to believe:

(1) That any activity has occurred or will occur which would result in the discharge on a routine or frequent basis, of any toxic pollutant which is not limited in this permit, if that discharge will exceed the highest of the following notification levels:

(a) one hundred micrograms per liter;

(b) two hundred micrograms per liter for acrolein and acrylonitrile; five hundred micrograms per liter for 2,4-dinitrophenol and for 2-methyl-4,6-dini-trophenol; and one milligram per liter for antimony;

(c) five times the maximum concentration value reported for that pollutant in the permit application; or

(2) That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following notification levels:

(a) five hundred micrograms per liter;

(b) one milligram per liter for antimony;

(c) ten times the maximum concentration value reported for that pollutant in the permit application.

3. Transfer of Permit

This permit may not be transferred or the name of the permittee changed without notice to the Director and subsequent modification or revocation and reissuance of the permit to identify the new permittee and to incorporate any other changes as may be required under the FWPCA or AWPCA. In the case of a change in name, ownership or control of the permittee's premises only, a request for permit modification in a format acceptable to the Director is required at least 30 days prior to the change. In the case of a change in name, ownership or control of the permittee's premises accompanied by a change or proposed change in effluent characteristics, a complete permit application is required to be submitted to the Director at least 180 days prior to the change. Whenever the Director is notified of a change in name, ownership or control, he may decide not to modify the existing permit and require the submission of a new permit application.

4. Permit Modification and Revocation

a. This permit may be modified or revoked and reissued, in whole or in part, during its term for cause, including but not limited to, the following:

(1) If cause for termination under Provision II. E. 5. of this permit exists, the Director may choose to revoke and reissue this permit instead of terminating the permit;

(2) If a request to transfer this permit has been received, the Director may decide to revoke and reissue or to modify the permit; or

(3) If modification or revocation and reissuance is requested by the permittee and cause exists, the Director may grant the request.

b. This permit may be modified during its term for cause, including but not limited to, the following:

(1) If cause for termination under Provision II. E. 5. of this permit exists, the Director may choose to modify this permit instead of terminating this permit;

(2) There are material and substantial alterations or additions to the facility or activity generating wastewater which occurred after permit issuance which justify the application of permit conditions that are different or absent in the existing permit;

(3) The Director has received new information that was not available at the time of permit issuance and that would have justified the application of different permit conditions at the time of issuance;

(4) A new or revised requirement(s) of any applicable standard or limitation is promulgated under Sections 301(b)(2)(C), (D), (E), and (F), and 307(a)(2) of the FWPCA;

(5) Errors in calculation of discharge limitations or typographical or clerical errors were made;

(6) To the extent allowed by ADEM Administrative Code, Rule 335-6-6-.17, when the standards or regulations on which the permit was based have been changed by promulgation of amended standards or regulations or by judicial decision after the permit was issued;

(7) To the extent allowed by ADEM Administrative Code, Rule 335-6-6-.17, permits may be modified to change compliance schedules;

(8) To agree with a granted variance under 30l(c), 30l(g), 30l(h), 30l(k), or 3l6(a) of the FWPCA or for fundamentally different factors;

(9) To incorporate an applicable 307(a) FWPCA toxic effluent standard or prohibition;

(10) When required by the reopener conditions in this permit;

(11) When required under 40 CFR 403.8(e) (compliance schedule for development of pretreatment program);

(12) Upon failure of the state to notify, as required by Section 402(b)(3) of the FWPCA, another state whose waters may be affected by a discharge permitted by this permit;

(13) When required to correct technical mistakes, such as errors in calculation, or mistaken interpretations of law made in determining permit conditions; or

(14) When requested by the permittee and the Director determines that the modification has cause and will not result in a violation of federal or state law, regulations or rules.

5. Permit Termination

This permit may be terminated during its term for cause, including but not limited to, the following:

a. Violation of any term or condition of this permit;

b. The permittee's misrepresentation or failure to disclose fully all relevant facts in the permit application or during the permit issuance process or the permittee's misrepresentation of any relevant facts at any time;

c. Materially false or inaccurate statements or information in the permit application or the permit;

d. A change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge;

e. The permittee's discharge threatens human life or welfare or the maintenance of water quality standards;

f. Permanent closure of the facility generating the wastewater permitted to be discharged by this permit or permanent cessation of wastewater discharge;

g. New or revised requirements of any applicable standard or limitation that is promulgated under Sections 301(b)(2)(C), (D), (E), and (F), and 307(a)(2) of the FWPCA that the Director determines cannot be complied with by the permittee; or

h. Any other cause allowed by the ADEM Administrative Code, Chapter 335-6-6.

6. Permit Suspension

This permit may be suspended during its term for noncompliance until the permittee has taken action(s) necessary to achieve compliance.

7. Request for Permit Action Does Not Stay Any Permit Requirement

The filing of a request by the permittee for modification, suspension or revocation of this permit, in whole or in part, does not stay any permit term or condition.

F. COMPLIANCE WITH TOXIC POLLUTANT STANDARD OR PROHIBITION

If any applicable effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the FWPCA, 33 U.S.C. Section 1317(a), for a toxic pollutant discharged by the permittee and such standard or prohibition is more stringent than any discharge limitation on the pollutant specified in Provision I. A. of this permit, or controls a pollutant not limited in Provision I. A. of this permit, this permit shall be modified to conform to the toxic pollutant effluent standard or prohibition and the permittee shall be notified of such modification. If this permit has not been modified to conform to the toxic pollutant effluent standard or prohibition before the effective date of such standard or prohibition, the permittee shall attain compliance with the requirements of the standard or prohibition within the time period required by the standard or prohibition and shall continue to comply with the standard or prohibition until this permit is modified or reissued.

G. DISCHARGE OF WASTEWATER GENERATED BY OTHERS

The discharge of wastewater, generated by any process, facility, or by any other means not under the operational control of the permittee or not identified in the application for this permit or not identified specifically in the description of an outfall in this permit is not authorized by this permit.

PART III OTHER PERMIT CONDITIONS

A. CIVIL AND CRIMINAL LIABILITY

1. Tampering

Any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained or performed under the permit shall, upon conviction, be subject to penalties as provided by the AWPCA.

2. False Statements

Any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be subject to penalties as provided by the AWPCA.

3. Permit Enforcement

a. Any NPDES permit issued or reissued by the Department is a permit for the purpose of the AWPCA and the FWPCA and as such any terms, conditions, or limitations of the permit are enforceable under state and federal law.

b. Any person required to have a NPDES permit pursuant to ADEM Administrative Code Chapter 335-6-6 and who discharges pollutants without said permit, who violates the conditions of said permit, who discharges pollutants in a manner not authorized by the permit, or who violates applicable orders of the Department or any applicable rule or standard of the Department, is subject to any one or combination of the following enforcement actions under applicable state statutes.

(1) An administrative order requiring abatement, compliance, mitigation, cessation, clean-up, and/or penalties;

(2) An action for damages;

(3) An action for injunctive relief; or

(4) An action for penalties.

c. If the permittee is not in compliance with the conditions of an expiring or expired permit the Director may choose to do any or all of the following provided the permittee has made a timely and complete application for reissuance of the permit:

(1) initiate enforcement action based upon the permit which has been continued;

(2) issue a notice of intent to deny the permit reissuance. If the permit is denied, the owner or operator would then be required to cease the activities authorized by the continued permit or be subject to enforcement action for operating without a permit;

(3) reissue the new permit with appropriate conditions; or

(4) take other actions authorized by these rules and AWPCA.

4. Relief from Liability

Except as provided in Provision II.C.1 (Bypass) and Provision II.C.2 (Upset), nothing in this permit shall be construed to relieve the permittee of civil or criminal liability under the AWPCA or FWPCA for noncompliance with any term or condition of this permit.

B. OIL AND HAZARDOUS SUBSTANCE LIABILITY

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties to which the permittee is or may be subject under Section 311 of the FWPCA, 33 U.S.C. Section 1321.

C. PROPERTY AND OTHER RIGHTS

This permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to persons or property or invasion of other private rights, trespass, or any infringement of federal, state, or local laws or regulations, nor does it authorize or approve the construction of any physical structures or facilities or the undertaking of any work in any waters of the state or of the United States.

D. AVAILABILITY OF REPORTS

Except for data determined to be confidential under Code of Alabama 1975, Section 22-22-9(c), all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Department. Effluent data shall not be considered confidential.

E. EXPIRATION OF PERMITS FOR NEW OR INCREASED DISCHARGES

1. If this permit was issued for a new discharger or new source, this permit shall expire eighteen months after the issuance date if construction of the facility has not begun during the eighteen-month period.

2. If this permit was issued or modified to allow the discharge of increased quantities of pollutants to accommodate the modification of an existing facility and if construction of this modification has not begun during the eighteen month period after issuance of this permit or permit modification, this permit shall be modified to reduce the quantities of pollutants allowed to be discharged to those levels that would have been allowed if the modification of the facility had not been planned.

3. Construction has begun when the owner or operator has:

   a. begun, or caused to begin as part of a continuous on-site construction program:

      (1) any placement, assembly, or installation of facilities or equipment; or

      (2) significant site preparation work including clearing, excavation, or removal of existing buildings, structures, or facilities which is necessary for the placement, assembly, or installation of new source facilities or equipment; or

   b. entered into a binding contractual obligation for the purpose of placement, assembly, or installation of facilities or equipment which are intended to be used in its operation within a reasonable time. Options to purchase or contracts which can be terminated or modified without substantial loss, and contracts for feasibility, engineering, and design studies do not constitute a contractual obligation under the paragraph. The entering into a lease with the State of Alabama for exploration and production of hydrocarbons shall also be considered beginning construction.

F. COMPLIANCE WITH WATER QUALITY STANDARDS

1. On the basis of the permittee's application, plans, or other available information, the Department has determined that compliance with the terms and conditions of this permit should assure compliance with the applicable water quality standards.

2. Compliance with permit terms and conditions notwithstanding, if the permittee's discharge(s) from point sources identified in Provision I. A. of this permit cause or contribute to a condition in contravention of state water quality standards, the Department may require abatement action to be taken by the permittee in emergency situations or modify the permit pursuant to the Department's Rules, or both.

3. If the Department determines, on the basis of a notice provided pursuant to this permit or any investigation, inspection or sampling, that a modification of this permit is necessary to assure maintenance of water quality standards or compliance with other provisions of the AWPCA or FWPCA, the Department may require such modification and, in cases of emergency, the Director may prohibit the discharge until the permit has been modified.

G. GROUNDWATER

Unless specifically authorized under this permit, this permit does not authorize the discharge of pollutants to groundwater. Should a threat of groundwater contamination occur, the Director may require groundwater monitoring to properly assess the degree of the problem and the Director may require that the Permittee undertake measures to abate any such discharge and/or contamination.

H. DEFINITIONS

1. Average monthly discharge limitation - 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 (zero discharge days shall not be included in the number of "daily discharges" measured and a less than detectable test result shall be treated as a concentration of zero if the most sensitive EPA approved method was used).

2. Average weekly discharge limitation - 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 (zero discharge days shall not be included in the number of "daily discharges" measured and a less than detectable test result shall be treated as a concentration of zero if the most sensitive EPA approved method was used).

3. Arithmetic Mean -- means the summation of the individual values of any set of values divided by the number of individual values.

4. AWPCA - means the Alabama Water Pollution Control Act.

5. BOD – means the five-day measure of the pollutant parameter biochemical oxygen demand.

6. Bypass - means the intentional diversion of waste streams from any portion of a treatment facility.

7. CBOD – means the five-day measure of the pollutant parameter carbonaceous biochemical oxygen demand.

8. Daily discharge - means the discharge of a pollutant measured during any consecutive 24-hour period in accordance with the sample type and analytical methodology specified by the discharge permit.

9. Daily maximum - means the highest value of any individual sample result obtained during a day.

10. Daily minimum - means the lowest value of any individual sample result obtained during a day.

11. Day - means any consecutive 24-hour period.

12. Department - means the Alabama Department of Environmental Management.

13. Director - means the Director of the Department.

14. Discharge - means "[t]he addition, introduction, leaking, spilling or emitting of any sewage, industrial waste, pollutant or other wastes into waters of the state". Code of Alabama 1975, Section 22-22-1(b)(8).

15. Discharge Monitoring Report (DMR) - means the form approved by the Director to accomplish reporting requirements of an NPDES permit.

16. DO – means dissolved oxygen.

17. 8HC – means 8-hour composite sample, including any of the following:

    a. The mixing of at least 5 equal volume samples collected at constant time intervals of not more than 2 hours over a period of not less than 8 hours between the hours of 6:00 a.m. and 6:00 p.m. If the sampling period exceeds 8 hours, sampling may be conducted beyond the 6:00 a.m. to 6:00 p.m. period.

    b. A sample continuously collected at a constant rate over period of not less than 8 hours between the hours of 6:00 a.m. and 6:00 p.m. If the sampling period exceeds 8 hours, sampling may be conducted beyond the 6:00 a.m. to 6:00 p.m. period.

18. EPA - means the United States Environmental Protection Agency.

19. FC – means the pollutant parameter fecal coliform.

20. Flow – means the total volume of discharge in a 24-hour period.

21. FWPCA - means the Federal Water Pollution Control Act.

22. Geometric Mean – means the Nth root of the product of the individual values of any set of values where N is equal to the number of individual values. The geometric mean is equivalent to the antilog of the arithmetic mean of the logarithms of the individual values. For purposes of calculating the geometric mean, values of zero (0) shall be considered one (1).

23. Grab Sample – means a single influent or effluent portion which is not a composite sample. The sample(s) shall be collected at the period(s) most representative of the discharge.

24. Indirect Discharger – means a nondomestic discharger who discharges pollutants to a publicly owned treatment works or a privately owned treatment facility operated by another person.

25. Industrial User – means those industries identified in the Standard Industrial Classification manual, Bureau of the Budget 1967, as amended and supplemented, under the category "Division D – Manufacturing" and such other classes of significant waste producers as, by regulation, the Director deems appropriate.

26. MGD – means million gallons per day.

27. Monthly Average – means, other than for fecal coliform bacteria, the arithmetic mean of the entire composite or grab samples taken for the daily discharges collected in one month period. The monthly average for fecal coliform bacteria is the geometric mean of daily discharge samples collected in a one month period. The monthly average for flow is the arithmetic mean of all flow measurements taken in a one month period.

28. New Discharger – means a person, owning or operating any building, structure, facility or installation:

    a. from which there is or may be a discharge of pollutants;

    b. that did not commence the discharge of pollutants prior to August 13, 1979, and which is not a new source; and

    c. which has never received a final effective NPDES permit for dischargers at that site.

29. NH3-N – means the pollutant parameter ammonia, measured as nitrogen.

30. Permit application - means forms and additional information that is required by ADEM Administrative Code Rule 335-6-6-.08 and applicable permit fees.

31. Point source - means "any discernible, confined and discrete conveyance, including but not limited to any pipe, channel, ditch, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, . . . from which pollutants are or may be discharged." Section 502(14) of the FWPCA, 33 U.S.C. Section 1362(14).

32. Pollutant - includes for purposes of this permit, but is not limited to, those pollutants specified in Code of Alabama 1975, Section 22-22-1(b)(3) and those effluent characteristics specified in Provision I. A. of this permit.

33. Privately Owned Treatment Works – means any devices or system which is used to treat wastes from any facility whose operator is not the operator of the treatment works, and which is not a "POTW".

34. Publicly Owned Treatment Works – means a wastewater collection and treatment facility owned by the State, municipality, regional entity composed of two or more municipalities, or another entity created by the State or local authority for the purpose of collecting and treating municipal wastewater.

35. Receiving Stream – means the "waters" receiving a "discharge" from a "point source".

36. 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 production.

37. Significant Source – means a source which discharges 0.025 MGD or more to a POTW or greater than five percent of the treatment work's capacity, or a source which is a primary industry as defined by the U.S. EPA or which discharges a priority or toxic pollutant.

38. Solvent – means any virgin, used or spent organic solvent(s) identified in the F-Listed wastes (F001 through F005) specified in 40 CFR 261.31 that is used for the purpose of solubilizing other materials.

39. TKN – means the pollutant parameter Total Kjeldahl Nitrogen.

40. TON – means the pollutant parameter Total Organic Nitrogen.

41. TRC – means Total Residual Chlorine.

42. TSS – means the pollutant parameter Total Suspended Solids.

43. 24HC – means 24-hour composite sample, including any of the following:

    a. the mixing of at least 12 equal volume samples collected at constant time intervals of not more than 2 hours over a period of 24 hours;

    b. a sample collected over a consecutive 24-hour period using an automatic sampler composite to one sample. As a minimum, samples shall be collected hourly and each shall be no more than one twenty-fourth (1/24) of the total sample volume collected; or

    c. a sample collected over a consecutive 24-hour period using an automatic composite sampler composited proportional to flow.

44. Upset - means an exceptional incident in which there is an unintentional and temporary noncompliance with technology-based permit discharge limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

45. Waters - means "[a]ll waters of any river, stream, watercourse, pond, lake, coastal, ground or surface water, wholly or partially within the state, natural or artificial. This does not include waters which are entirely confined and retained completely upon the property of a single individual, partnership or corporation unless such waters are used in interstate commerce." Code of Alabama 1975, Section 22-22-1(b)(2). Waters "include all navigable waters" as defined in Section 502(7) of the FWPCA, 22 U.S.C. Section 1362(7), which are within the State of Alabama.

46. Week - means the period beginning at twelve midnight Saturday and ending at twelve midnight the following Saturday.

47. Weekly (7-day and calendar week) Average – is the arithmetic mean of all samples collected during a consecutive 7-day period or calendar week, whichever is applicable. The calendar week is defined as beginning on Sunday and ending on Saturday. Weekly averages shall be calculated for all calendar weeks with Saturdays in the month. If a calendar week overlaps two months (i.e., the Sunday is in one month and the Saturday in the following month), the weekly average calculated for the calendar week shall be included in the data for the month that contains the Saturday.

I. SEVERABILITY

The provisions of this permit are severable, and if any provision of this permit or the application of any provision 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.

PART IV ADDITIONAL REQUIREMENTS, CONDITIONS, AND LIMITATIONS

A. BEST MANAGEMENT PRACTICES (BMP) PLAN REQUIREMENTS

1. BMP Plan

The permittee shall develop and implement a Best Management Practices (BMP) Plan which prevents, or minimizes the potential for, the release of pollutants from ancillary activities, including material storage areas; plant site runoff; in-plant transfer, process and material handling areas; loading and unloading operations, and sludge and waste disposal areas, to the waters of the State through plant site runoff; spillage or leaks; sludge or waste disposal; or drainage from raw material storage.

2. Plan Content

The permittee shall prepare and implement a best management practices (BMP) plan, which shall:

a. Establish specific objectives for the control of pollutants:

(1) Each facility component or system shall be examined for its potential for causing a release of significant amounts of pollutants to waters of the State due to equipment failure, improper operation, natural phenomena such as rain or snowfall, etc.

(2) Where experience indicates a reasonable potential for equipment failure (e.g., a tank overflow or leakage), natural condition (e.g. precipitation), or circumstances to result in significant amounts of pollutants reaching surface waters, the plan should include a prediction of the direction, rate of flow, and total quantity of pollutants which could be discharged from the facility as a result of each condition or circumstance.

b. Establish specific best management practices to meet the objectives identified under paragraph a. of this section, addressing each component or system capable of causing a release of significant amounts of pollutants to the waters of the State, and identifying specific preventative or remedial measures to be implemented;

c. Establish a program to identify and repair leaking equipment items and damaged containment structures, which may contribute to contaminated stormwater runoff. This program must include regular visual inspections of equipment, containment structures and of the facility in general to ensure that the BMP is continually implemented and effective;

d. Prevent the spillage or loss of fluids, oil, grease, gasoline, etc. from vehicle and equipment maintenance activities and thereby prevent the contamination of stormwater from these substances;

e. Prevent or minimize stormwater contact with material stored on site;

f. Designate by position or name the person or persons responsible for the day to day implementation of the BMP;

g. Provide for routine inspections, on days during which the facility is manned, of any structures that function to prevent stormwater pollution or to remove pollutants from stormwater and of the facility in general to ensure that the BMP is continually implemented and effective;

h. Provide for the use and disposal of any material used to absorb spilled fluids that could contaminate stormwater;

i. Develop a solvent management plan, if solvents are used on site: The solvent management plan shall include as a minimum lists of the solvents on site; the disposal method of solvents used instead of dumping, such as reclamation, contract hauling; and the procedures for assuring that solvents do not routinely spill or leak into the stormwater;

j. Provide for the disposal of all used oils, hydraulic fluids, solvent degreasing material, etc. in accordance with good management practices and any applicable state or federal regulations;

k. Include a diagram of the facility showing the locations where stormwater exits the facility, the locations of any structure or other mechanisms intended to prevent pollution of stormwater or to remove pollutants from stormwater, the locations of any collection and handling systems;

l. Provide control sufficient to prevent or control pollution of stormwater by soil particles to the degree required to maintain compliance with the water quality standard for turbidity applicable to the waterbody(s) receiving discharge(s) under this permit;

m. Provide spill prevention, control, and/or management sufficient to prevent or minimize contaminated stormwater runoff. Any containment system used to implement this requirement shall be constructed of materials compatible with the substance(s) contained and shall prevent the contamination of groundwater. The containment system shall also be capable of retaining a volume equal to 110 percent of the capacity of the largest tank for which containment is provided;

n. Provide and maintain curbing, diking or other means of isolating process areas to the extent necessary to allow segregation and collection for treatment of contaminated stormwater from process areas;

o. Be reviewed by plant engineering staff and the plant manager; and

p. Bear the signature of the plant manager.

3. Compliance Schedule

The permittee shall have reviewed (and revised if necessary) and fully implemented the BMP plan as soon as practicable but no later than six months after the effective date of this permit.

4. Department Review

a. When requested by the Director or his designee, the permittee shall make the BMP available for Department review.

b. The Director or his designee may notify the permittee at any time that the BMP is deficient and require correction of the deficiency.

c. The permittee shall correct any BMP deficiency identified by the Director or his designee within 30 days of receipt of notification and shall certify to the Department that the correction has been made and implemented.

5. Administrative Procedures

a. A copy of the BMP shall be maintained at the facility and shall be available for inspection by representatives of the Department.

b. A log of the routine inspection required above shall be maintained at the facility and shall be available for inspection by representatives of the Department. The log shall contain records of all inspections performed for the last three years and each entry shall be signed by the person performing the inspection.

c. The permittee shall provide training for any personnel required to implement the BMP and shall retain documentation of such training at the facility. This documentation shall be available for inspection by representatives of the Department. Training shall be performed prior to the date that implementation of the BMP is required.

d. BMP Plan Modification. The permittee shall amend the BMP plan whenever there is a change in the facility or change in operation of the facility which materially increases the potential for the ancillary activities to result in a discharge of significant amounts of pollutants.

e. BMP Plan Review. The permittee shall complete a review and evaluation of the BMP plan at least once every three years from the date of preparation of the BMP plan. Documentation of the BMP Plan review and evaluation shall be signed and dated by the Plant Manager.

B. STORMWATER FLOW MEASUREMENT AND SAMPLING REQUIREMENTS

1. Stormwater Flow Measurement

a. All stormwater samples shall be collected from the discharge resulting from a storm event that is greater than 0.1 inches.

b. The total volume of stormwater discharged for the event must be monitored, including the date and duration (in hours) and rainfall (in inches) for storm event(s) sampled. The duration between the storm

event sampled and the end of the previous measurable (greater than 0.1 inch rainfall) storm event must be a minimum of 72 hours. This information must be recorded as part of the sampling procedure and records retained according to Part I.B. of this permit.

c. The volume may be measured using flow measuring devices, or estimated based on a modification of the Rational Method using total depth of rainfall, the size of the drainage area serving a stormwater outfall, and an estimate of the runoff coefficient of the drainage area. This information must be recorded as part of the sampling procedure and records retained according to Part I.B. of this permit.

2. Stormwater Sampling

a. A grab sample, if required by this permit, shall be taken during the first thirty minutes of the discharge (or as soon thereafter as practicable); and a flow-weighted composite sample, if required by this permit, shall be taken for the entire event or for the first three hours of the event.

b. All test procedures will be in accordance with part I.B. of this permit.

C. COOLING WATER INTAKE STRUCTURE (CWIS) REQUIREMENTS

1. The cooling water intake structure used by the permittee has been evaluated using available information. At this time, the Department has determined, using BPJ, that the cooling water intake structure represents the best technology available (BTA) to minimize adverse environmental impact in accordance with Section 316(b) of the Federal Clean Water Act (33 U.S.C. section 1326).

2. The permittee shall submit the following information at least 180 days prior to expiration of the permit:

a. design intake flow of the CWIS

b. percentage of intake flow, based on highest monthly average in last 5 years, used for cooling purposes;

c. an estimate of the intake flow reduction at the facility based upon the use of a 100 percent (or some lesser percentage) closed-cycle re-circulating cooling water system compared to a conventional once-through cooling water system

d. through screen design intake flow velocity

e. any impingement and entrainment data that may have been collected based on the operation of the facility's CWIS, collected since the effective date of this NPDES permit

f. a detailed description of any changes in the operations of the CWIS, or changes in the type of technologies used at the CWIS such as screens or other technologies affecting the rates of impingement and/or entrainment of fish and shellfish

3. The permittee is required to operate and maintain the CWIS in a manner that minimizes impingement and entrainment levels. Documentation detailing the steps that have and are being taken to minimize the impingement and entrainment levels shall be maintained on site and made available upon request.

4. Nothing in this Permit authorizes take for the purposes of a facility compliance with the Endangered Species Act. Under the Endangered Species Act, take means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct, of endangered or threatened species.

D. EFFLUENT TOXICITY LIMITATIONS AND BIOMONITORING REQUIREMENTS

1. The permittee shall perform short-term chronic toxicity tests on the wastewater discharges required to be tested for chronic toxicity by Part I of this permit.

a. Test Requirements (Screening Test)

(1) The samples shall be diluted using appropriate control water, to the Instream Waste Concentration (IWC) which is 4% effluent. The IWC is the actual concentration of effluent, after mixing, in the receiving stream during a 7-day, 10-year flow period.

(2) Any test result that shows a statistically significant reduction in survival, growth, or reproduction between the control and the test at the 95% confidence level indicate chronic toxicity and constitute noncompliance with this permit.

b. General Test Requirements

(1) A minimum of three (3) 24-hour composite samples shall be obtained for use in the above biomonitoring tests and collected every other day so that the laboratory receives water samples on the first, third, and fifth day of the seven-day test period. The holding time for each composite sample shall not exceed 36 hours. The control water shall be a water prepared in the laboratory in accordance with the EPA procedure described in EPA 821-R-02-013 or the most current edition or another control water selected by the permittee and approved by the Department.

(2) Effluent toxicity tests in which the control survival is less than 80%, P. promelas dry weight per surviving control organism is less than 0.25 mg, Ceriodaphnia number of young per surviving control organism is less than 15, Ceriodaphnia reproduction where less than 60% of surviving control females produce three broods or in which the other requirements of the EPA Test Procedure are not met shall be unacceptable and the permittee shall rerun the tests as soon as practical within the monitoring period.

(3) In the event of an invalid test, upon subsequent completion of a valid test, the results of all tests, valid and invalid, are reported with an explanation of the tests performed and results.

c. Reporting Requirements

(1) The permittee shall notify the Department in writing within 48 hours after toxicity has been demonstrated by the scheduled test(s).

(2) Biomonitoring test results obtained during each monitoring period shall be summarized and reported using the appropriate Discharge Monitoring Report (DMR) form approved by the Department. In accordance with Section 2 of this part, an effluent toxicity report containing the information in Section 2 shall be included with the DMR. Two copies of the test results must be submitted to the Department no later than 28 days after the month in which the tests were performed.

d. Additional Testing Requirements

(1) If chronic toxicity is indicated (noncompliance with permit limit), the permittee shall perform two additional valid chronic toxicity tests in accordance with these procedures to determine the extent and duration of the toxic condition. The toxicity tests shall run consecutively beginning on the first calendar week following the date on which the permittee became aware of the permit noncompliance and the results of these tests shall be submitted no later than 28 days following the month in which the tests were performed.

(2) After evaluation of the results of the follow-up tests, the Department will determine if additional action is appropriate and may require additional testing and/or toxicity reduction measures. The permittee may be required to perform a Toxicity Identification Evaluation (TIE) and/or a Toxicity Reduction Evaluation (TRE). The TIE/TRE shall be performed in accordance with the most recent protocols/guidance outlined by EPA (e.g., EPA/600/2-88/062, EPA/600/R-92/080, EPA/600/R-91-003, EPA/600/R-92/081, EPA/833/B-99/022 and/or EPA/600/6-91/005F, etc.)

e. Test Methods

(1) The tests shall be performed in accordance with the latest edition of the "EPA Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Water to Freshwater Organisms". The Larval Survival and Growth Test, Methods 1000.0, shall be used for the fathead minnow (*Pimephales promelas*) test and the Survival and Reproduction Test, Method 1002.0, shall be used for the cladoceran (*Ceriodaphnia dubia*) test.

2. Effluent Toxicity Testing Reports

The following information shall be submitted with each discharge monitoring report unless otherwise directed by the Department. The Department may at any time suspend or reinstate these requirements or may decrease or increase the frequency of submittals.

a. Introduction

(1) Facility name, location, and county

(2) Permit number

(3) Toxicity testing requirements of permit

(4) Name of receiving water body

(5) Contract laboratory information (if tests are performed under contract)

(a) Name of firm
(b) Telephone number
(c) Address

(6) Objective of test

b. Plant Operation

(1) Discharge Operating schedule (if other than continuous)

(2) Volume of discharge during sample collection to include Mean daily discharge on sample collection dates (MGD, CFS, GPM)

(3) Design flow of treatment facility at time of sampling

c. Source of Effluent and Dilution Water

(1) Effluent samples

(a) Sampling point
(b) Sample collection dates and times (to include composite sample start and finish times)
(c) Sample collection method
(d) Physical and chemical data of undiluted effluent samples (water temperature, pH, alkalinity, hardness, specific conductance, total residual chlorine (if applicable), etc.)
(e) Lapsed time from sample collection to delivery
(f) Lapsed time from sample collection to test initiation
(g) Sample temperature when received at the laboratory

(2) Dilution Water

(a) Source
(b) Collection/preparation date(s) and time(s)
(c) Pretreatment (if applicable)
(d) Physical and chemical characteristics (water temperature, pH, alkalinity, hardness, specific conductance, etc.)

d. Test Conditions

(1) Toxicity test method utilized

(2) End point(s) of test

(3) Deviations from referenced method, if any, and reason(s)

(4) Date and time test started

(5) Date and time test terminated

(6) Type and volume of test chambers

(7) Volume of solution per chamber

(8) Number of organisms per test chamber

(9) Number of replicate test chambers per treatment

(10) Test temperature, pH, and dissolved oxygen as recommended by the method (to include ranges)

(11) Specify if aeration was needed

(12) Feeding frequency, amount, and type of food

(13) Specify if (and how) pH control measures were implemented

(14) Light intensity (mean)

e. Test Organisms

(1) Scientific name

(2) Life stage and age

(3) Source

(4) Disease(s) treatment (if applicable)

f. Quality Assurance

(1) Reference toxicant utilized and source

(2) Date and time of most recent chronic reference toxicant test(s), raw data and current control chart(s). The most recent chronic reference toxicant test shall be conducted within 30 days of the routine.

(3) Dilution water utilized in reference toxicant test

(4) Results of reference toxicant test(s) (NOEC, IC25, PASS/FAIL, etc.), report concentration response relationship and evaluate test sensitivity

(5) Physical and chemical methods utilized

g. Results

(1) Provide raw toxicity data in tabular form, including daily records of affected organisms in each concentration (including controls) and replicate

(2) Provide table of endpoints: NOECs, IC25s, PASS/FAIL, etc. (as required in the applicable NPDES permit)

(3) Indicate statistical methods used to calculate endpoints

(4) Provide all physical and chemical data required by method

(5) Results of test(s) (NOEC, IC25, PASS/FAIL, etc.), report concentration-response relationship (definitive test only), report percent minimum significant difference (PMSD) calculated for sub-lethal endpoints determined by hypothesis testing.

h. Conclusions and Recommendations

(1) Relationship between test endpoints and permit limits

(2) Actions to be taken

1/ Adapted from "Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms", Fourth Edition, October 2002 (EPA 821-R-02-013), Section 10, Report Preparation

E. BEST MANAGEMENT PRACTICES (BMPs) FOR SPENT PULPING LIQUOR, SOAP, AND TURPENTINE MANAGEMENT, SPILL PREVENTION, AND CONTROL

1. Applicability

This section applies to direct and indirect discharging pulp, paper, and paperboard mills with pulp production in Subparts B (Bleached Papergrade Kraft and Soda) and E (Papergrade Sulfite) of the Pulp and Paper Guidelines (40 CFR Part 430).

2. Specialized Definitions

a. Action Level: A daily pollutant loading that when exceeded triggers investigative or corrective action. The mill shall determine action levels by a statistical analysis of six months of daily measurements collected at the mill. For example, the lower action level may be the 75th percentile of the running seven-day averages (that value exceeded by 25 percent of the running seven-day averages) and the upper action level may be the 90th percentile of the running seven-day averages (that value exceeded by 10 percent of the running seven-day averages).

b. Equipment Items in Spent Pulping, Liquor, Soap, and Turpentine Service: Any process vessel, storage tank, pumping system, evaporator, heat exchanger, recovery furnace or boiler, pipeline, valve, fitting, or other device that contains, processes, transports, or comes into contact with spent pulping liquor, soap, or turpentine. Sometimes referred to as "equipment items".

c. Immediate Process Area: The location at the mill where pulping, screening, knotting, pulp washing, pulping liquor concentration, pulping liquor processing, and chemical recovery facilities are located, generally the battery limits of the aforementioned processes. "Immediate process area" includes spent pulping liquor storage and spill control tanks located at the mill, whether or not they are located in the immediate process area.

d. Intentional Diversion: The planned removal of spent pulping liquor, soap, or turpentine from equipment items in spent pulping liquor, soap, or turpentine service by the mill for any purpose including, but not limited to, maintenance, grade changes, or process shutdowns.

e. Mill: The owner or operator of a direct or indirect discharging pulp, paper, or paperboard manufacturing facility subject to this section.

f. Senior Technical Manager: The person designated by the mill manager to review the BMP Plan. The senior technical manager shall be the chief engineer at the mill, the manager of pulping and chemical recovery operations, or other such responsible person designated by the mill manager who has knowledge of and responsibility for pulping and chemical recovery operations.

g. Soap: The product of reaction between the alkali in Kraft pulping liquor and fatty acid portions of the wood, which precipitate out when water is evaporated from the spent pulping liquor.

h. Spent Pulping Liquor: For Kraft and soda mills "spent pulping liquor" means black liquor that is used, generated, stored, or processed at any point in the pulping and chemical recovery processes. For sulfite mills "spent pulping liquor" means any intermediate, final, or used chemical solution that is used, generated, stored, or processed at any point in the sulfite pulping and chemical recovery processes (e.g., ammonium-, calcium-, magnesium-, or sodium- based sulfite liquors).

i. Turpentine: A mixture of terpenes, principally pinene, obtained by the steam distillation of pine gum recovered from the condensation of digester relief gases from the cooking of softwoods by the Kraft pulping process. Sometimes referred to as sulfite turpentine.

3. Requirement to Implement Best Management Practices

a. The mill must implement the Best Management Practices (BMPs) specified in paragraphs (1) through (10) of this section. The primary objective of the BMPs is to prevent leaks and spills of spent pulping liquors, soap, and turpentine. The secondary objective is to contain, collect, and recover at the immediate process area, or otherwise control, those leaks, spills, and intentional diversions of spent

pulping liquor, soap, and turpentine that do occur. BMPs must be developed according to best engineering practices and must be implemented in a manner that takes into account the specific circumstances at the mill.

b. The BMPs are as follows:

(1) The mill must return spilled or diverted spent pulping liquors, soap, and turpentine to the process to the maximum extent practicable as determined by the mill, recover such materials outside the process, or discharge spilled or diverted material at a rate that does not disrupt the receiving wastewater treatment system.

(2) The mill must establish a program to identify and repair leaking equipment items. This program must include:

(a) Regular visual inspections (e.g., once per day) of process areas with equipment items in spent pulping liquor, soap, and turpentine service;

(b) Immediate repairs of leaking equipment items, when possible. Leaking equipment items that cannot be repaired during normal operations must be identified, temporary means for mitigating the leaks must be provided, and the leaking equipment items repaired during the next maintenance outage;

(c) Identification of conditions under which production will be curtailed or halted to repair leaking equipment items or to prevent pulping liquor, soap, and turpentine leaks and spills; and

(d) A means for tracking repairs over time to identify those equipment items where upgrade or replacement may be warranted based on frequency and severity of leaks, spills, or failures.

(3) The mill must operate continuous, automatic monitoring systems that the mill determines are necessary to detect and control leaks, spills, and intentional diversions of spent pulping liquor, soap, and turpentine. These monitoring systems should be integrated with the mill process control system and may include, e.g., high level monitors and alarms on storage tanks; process area conductivity (or pH) monitors and alarms; and process area sewer, process wastewater, and wastewater treatment plant conductivity (or pH) monitors and alarms.

(4) The mill must establish a program of initial and refresher training of operators, maintenance personnel, and other technical and supervisory personnel who have the responsibility for operating, maintaining, or supervising the operation and maintenance of equipment items in spent pulping liquor, soap, and turpentine service. The refresher training must be conducted at least annually and the training program must be documented.

(5) The Mill must prepare a brief report that evaluates each spill of spent pulping liquor, soap, or turpentine that is not contained at the immediate process areas and any intentional diversion of spent pulping liquor, soap, and turpentine that is not contained at the immediate process area. The report must describe the equipment items involved, the circumstances leading to the incident, the effectiveness of the corrective actions taken to contain and recover the spill or intentional diversion, and plans to develop changes to equipment and operating and maintenance practices as necessary to prevent recurrence. Discussion of the reports must be included as part of the annual refresher training.

(6) The mill must establish a program to review any planned modifications to the pulping and chemical recovery facilities and any construction activities in the pulping and chemical recovery areas before these activities commence. The purpose of such review is to prevent leaks and spills of spent pulping liquor, soap, and turpentine during the planned modifications, and to ensure that construction and supervisory personnel are aware of possible liquor diversions and of the requirement to prevent leaks and spills of spent pulping liquors, soap, and turpentine during construction.

(7) The mill must install and maintain secondary containment (i.e., containment constructed of materials impervious to pulping liquors) for spent pulping liquor bulk storage tanks equivalent to the volume of the largest tank plus sufficient freeboard for precipitation. An annual tank integrity testing program, if coupled with other containment or diversion

structures, may be substituted for secondary containment for spent pulping liquor bulk storage tanks.

(8) The mill must install and maintain secondary containment for turpentine bulk storage tanks.

(9) The mill must install and maintain curbing, diking or other means of isolating soap and turpentine processing and loading areas from the wastewater treatment facilities.

(10) The mill must conduct wastewater monitoring to detect leaks and spills, to track the effectiveness of the BMPs, and to detect trends in spent pulping liquor losses. Such monitoring must be performed in accordance with paragraph 9. of the following sections.

4. Requirement to Develop a BMP Plan

a. The mill must prepare and implement a BMP Plan. The BMP Plan must be based on a detailed engineering review as described in paragraphs 4.b. and c. of this section. The BMP Plan must specify the procedures and the practices required for the mill to meet the requirements of paragraph 3. of the previous section, the construction the mill determines is necessary to meet those requirements including a schedule for such construction, and the monitoring program (including the statistically derived action levels) that will be used to meet the requirements of paragraph 9. of the following sections. The BMP Plan also must specify the period of time that the mill determines the action levels established under paragraph 8. of the following sections may be exceeded without triggering the responses specified in paragraph 9. of the following sections.

b. The mill must conduct a detailed engineering review of the pulping and chemical recovery operations – including but not limited to process equipment, storage tanks, pipeline and pumping systems, loading and unloading facilities, and other appurtenant pulping and chemical recovery equipment items in spent pulping liquor, soap, and turpentine service – for the purpose of determining the magnitude and routing of potential leaks, spills, and intentional diversions of spent pulping liquors, soap, and turpentine during the following periods of operation:

(1) Process start-ups and shut downs;

(2) Maintenance;

(3) Production grade changes;

(4) Storm or other weather events;

(5) Power failures;

(6) Normal operations.

c. As part of the engineering review, the mill must determine whether existing spent pulping liquor containment facilities are of adequate capacity for collection and storage of anticipated intentional liquor diversions with sufficient contingency for collection and containment of spills. The engineering review must also consider:

(1) The need for continuous, automatic monitoring systems to detect and control leaks and spills of spent pulping liquor, soap, and turpentine;

(2) The need for process wastewater diversion facilities to protect end-of-pipe wastewater treatment facilities from adverse effects of spills and diversions of spent pulping liquors, soap, and turpentine;

(3) The potential for contamination of storm water from the immediate process areas; and

(4) The extent to which segregation and/or collection and treatment of contaminated storm water from the immediate process areas is appropriate.

5. Amendment of BMP Plan

   a. The mill must amend its BMP Plan whenever there is a change in mill design, construction, operation, or maintenance that materially affects the potential for leaks or spills of spent pulping liquor, turpentine, or soap from the immediate process areas.

   b. The mill must complete a review and evaluation of the BMP Plan five years after the first BMP Plan is prepared and, except as provided in paragraph 5.a. of this section, once every five years thereafter. As a result of this review and evaluation, the mill must amend the BMP Plan within three months of the review if the mill determines that any new or modified management practices and engineered controls are necessary to reduce significantly the likelihood of spent pulping liquor, soap, and turpentine leaks, spills, or intentional diversions from the immediate process areas, including a schedule for implementation of such practices and controls.

6. Review and Certification of BMP Plan

   The BMP Plan, and any amendments thereto, must be reviewed by the senior technical manager at the mill and approved and signed by the mill manager. Any person signing the BMP Plan or its amendments must certify to the Department under penalty of law that the BMP Plan (or its amendments) has been prepared in accordance with good engineering practices and in accordance with this permit and 40 CFR Part 430. The mill is not required to obtain approval from the Department of the BMP Plan or any amendments thereto.

7. Record Keeping Requirements

   a. The mill must maintain on its premises a complete copy of the current BMP Plan and the records specified in paragraph b. of this section and must make such BMP Plan and records available to the Department for review upon request.

   b. The mill must maintain the following records for three years from the date they are created:

      (1) Records tracking the repairs performed in accordance with the repair program described in paragraph 3.b.(2) of the previous sections;

      (2) Records of initial and refresher training conducted in accordance with paragraph 3.b.(4) of the previous sections;

      (3) Reports prepared in accordance with paragraph 3.b.(5) of the previous sections; and

      (4) Records of monitoring required by paragraph 3.b.(10) of the previous sections and paragraph 9. of the following sections.

8. Establishment of Wastewater Treatment System Influent Action Levels

   a. The mill must conduct a monitoring program, described in paragraph b. of this section, for defining wastewater treatment system influent characteristics (or action levels), described in paragraph c. of this section that will trigger requirements to initiate investigations on BMP effectiveness and to take corrective action.

   b. The mill must employ the following procedures in order to develop the action levels required by paragraph 8. of this section;

      (1) Monitoring parameters: The mill must collect 24-hour composite samples and analyze the samples for a measure of organic content (e.g., Chemical Oxygen Demand (COD) or Total Organic Carbon (TOC). Alternatively, the mill may use a measure related to spent pulping liquor losses measured continuously and averaged over 24 hours (e.g., specific conductivity or color).

      (2) Monitoring locations: For direct discharges, monitoring must be conducted at the point influent enters the wastewater treatment system. For indirect dischargers monitoring must be conducted at the point of discharge to the POTW. For the purposes of this requirement, the mill may select alternate monitoring point(s) in order to isolate possible sources of spent pulping liquor, soap, or turpentine from other possible sources of organic wastewaters that are tributary to the wastewater treatment facilities (e.g., bleach plants, paper machines and secondary fiber operations).

c. By the date described in paragraph 10.a.(3) of the following sections, each existing discharger must complete an initial six-month monitoring program using the procedures specified in paragraph 8.b. of this section and must establish initial action levels based on the results of this program. A wastewater treatment influent action level is a statistically determined pollutant loading determined by a statistical analysis of six months of daily measurements. The action levels must consist of a lower action level, which if exceeded will trigger the investigation requirements described in paragraph 9. of the following section, and an upper action level, which if exceeded will trigger the corrective action requirements described in paragraph 9. of the following section.

d. By the date prescribed in paragraph 10.a.(6) of the following sections, each existing discharger must complete a second six-month monitoring program using the procedures specified in paragraph 8.b. of this section and must establish revised action levels based on the results of that program. The initial action levels shall remain in effect until replaced by revised action levels.

e. By the date prescribed in paragraph 10.b. of the following sections, each new source must complete a six-month monitoring program using the procedures specified in paragraph 8.b. of this section and must develop a lower action level and an upper action level based on the results of that program.

f. Action levels developed under this paragraph must be revised using six months of monitoring data after any change in mill design, construction, operation, or maintenance that materially affects the potential for leaks or spills of spent pulping liquor, soap, or turpentine from the immediate process areas.

9. Monitoring, Corrective Action, and Reporting Requirements

a. The mill must conduct daily monitoring of the influent to the wastewater treatment system in accordance with the procedures described in paragraph 8.b. of the previous section for the purpose of detecting leaks and spills, tracking the effectiveness of the BMPs, and detecting trends in spent pulping liquor losses.

b. Whenever monitoring results exceed the lower action level for the period specified in the BMP Plan, the mill must conduct an investigation to determine the cause of such exceedance. Whenever monitoring results exceed the upper action level for the period of time specified in the BMP Plan, the mill must complete corrective action to bring the wastewater treatment system influent mass loading below the lower action level as soon as practicable.

c. Although exceedances of the action levels will not constitute violations of the permit, failure to take the actions required by paragraph 9.b. of this section as soon as practicable will be a permit violation.

d. The mill must report to the Department the results of the daily monitoring conducted pursuant to paragraph 9.a. of this section. Such reports must include a summary of the monitoring results, the number and dates of exceedances of the applicable action levels, and brief descriptions of any corrective actions taken to respond to such exceedances. **Submission of the BMP exceedances shall be quarterly by the 28th day of April, July, and October. A summary of the daily monitoring results shall be submitted annually by the 28th day of January.**

e. The permittee is required to verify submittal of the BMP requirements by submitting a value of "0" on the discharge monitoring report for DSN001Q under the parameter "Certification – BMP Submittal" for each quarter.

10. Compliance Deadlines

a. Existing direct and indirect dischargers: Except as provided in paragraph 10.b. of this section for new sources, indirect discharging mills must meet the compliance deadlines set forth below. Except as provided in paragraph 10.b. of this section for new sources, direct discharging mills must meet the deadlines set forth below. **If a deadline set forth below has passed at the time the permit is issued, the mill must achieve compliance with the BMP requirement(s) upon the permit effective date.**

(1) **Prepare BMP Plans and certify to the Department** that the BMP Plan has been prepared in accordance with the permit and 40 CFR Part 430 not later than **April 15, 1999**;

(2) Implement **all BMPs** specified in paragraph 3. of the previous sections **that do not require the construction of containment or diversion structures or the installation of monitoring and alarm systems** not later than **April 15, 1999**.

(3) Establish initial action levels required by paragraph 8.c. of the previous sections not later than April 15, 1999.

(4) Commence operation of any new or upgraded continuous, automatic monitoring systems that the mill determines to be necessary under paragraph 3.(3) of the previous sections (other than those associated with construction of containment structures) not later than April 17, 2000.

(5) Complete construction and commence operation of any spent pulping liquor, collection, containment, diversion, or other facilities, including any associated continuous monitoring systems, necessary to fully implement BMPs specified in paragraph 3. of the previous sections not later than April 16, 2001.

(6) Establish revised action levels required by paragraph 3. of the previous sections, by not later than January 15, 2002.

b. New Sources: **Upon commencing discharge,** new sources subject to this section must **implement all of the BMPs** specified in paragraph 3. of the previous sections, **prepare the BMP Plan** required by paragraph 4. of the previous sections, **and certify to the Department** that the BMP Plan has been prepared in accordance with this permit and 40 CFR part 430 as required by paragraph 6. of the previous sections, except that the **action levels** required by paragraph 8.e. of the previous sections **must be established not later than 12 months after commencement of discharge,** based on six months of monitoring data obtained prior to that date in accordance with the procedures specified in paragraph 8.b. of the previous sections.

F. RECEIVING STREAM WATER QUALITY MONITORING REQUIREMENTS

1. The discharge authorized by this permit shall not cause a violation of the applicable dissolved oxygen standard downstream of the discharge. The permittee shall take steps necessary to ensure that its effluent does not result in dissolved oxygen values at the five-foot depth being depressed below the water quality standard as measure by the permittee, ADEM, EPA, or its successor.

2. Stream monitoring shall be performed between June 1 and October 31, inclusive, downstream from the Westrock Mill Company, LLC discharge point to a point beyond the downstream sag or to the Hwy 114 Bridge if the dissolved oxygen levels are still decreasing at the monitoring point. Parameters to be monitoring shall be dissolved oxygen at the five-foot depth, biochemical oxygen demand (5-day), water temperature, and pH. This monitoring requirement may be satisfied with monitoring data gathered by Georgia-Pacific Consumer Operations, LLC and submitted by the permittee.

3. Frequency

a. Monitoring is required once per two weeks under normal conditions.

b. Monitoring is required twice per week when the minimum dissolved oxygen value found is less than 5.9 mg/l.

c. Monitoring is required once per day when the minimum dissolved oxygen value found is less than 5.2 mg/l.

d. Monitoring is not required during unsafe river conditions (e.g. river flow exceeds 16,000 cfs and/or when the river elevation stage below the Demopolis Dam lower pool exceeds 35.5 feet mean sea level (MSL))

4. Locations

The number of monitoring points and their locations are to be approved by the Alabama Department of Environmental Management.

5. Sample Collection and Analysis

Sample collection and analysis shall be performed in accordance with EPA approved sample collection protocol and analysis methods. The times samples are collected should be reported and when practicable, all measurement should be made prior to 12:00 pm.

6. Reporting

River monitoring data shall be submitted electronically to an email address provided by the Department. The permittee is required to verify submittal of the river monitoring data by submitting a value of "0" on the discharge monitoring report for DSN0011 under the parameter "Certification – River Monitoring" for those months in which monitoring is required.

G. REQUIRED TEST METHODS AND MINIMUM LEVELS FOR INTERNAL BLEACH PLANT MONITORING AND REPORTING

Parameter	Test Method	Minimum Level
TCDD	1613	10 pg/l
TCDF	1613	10 pg/l
Chloroform	601[1]	0.5 µg/l[2]
Trichlorosyringol	1653	2.5 µg/l
3,4,5-Trichlorocatechol	1653	5.0 µg/l
3,4,6-Trichlorocatechol	1653	5.0 µg/l
3,4,5-Trichloroguaiacol	1653	2.5 µg/l
3,4,6-Trichloroguaiacol	1653	2.5 µg/l
4,5,6-Trichloroguaiacol	1653	2.5 µg/l
2,4,5-Trichlorophenol	1653	2.5 µg/l
2,4,6-Trichlorophenol	1653	2.5 µg/l
Tetrachlorocatechol	1653	5.0 µg/l
Tetrachloroguaiacol	1653	5.0 µg/l
2,3,4,6-Tetrachlorophenol	1653	2.5 µg/l
Pentachlorophenol	1653	5.0 µg/l
AOX	1650	20 µg/l

[1]Or other method as approved in 40 CFR 136.

[2]An ML for chloroform was not promulgated in the Cluster Rules. The value in this permit is considered a matrix specific ML typical of levels achieved in paper mill effluents as demonstrated through NCASI studies.

TCDD means 2,3,7,8-tetrachlorodibenzo-p-dioxin

TCDF means 2,3,7,8-tetrachlorodibenzo-p-furan

Minimum level means the level at which the analytical system gives recognizable signals and an acceptable calibration point.

LANCE R. LEFLEUR
DIRECTOR

KAY IVEY
GOVERNOR

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FACT SHEET

APPLICATION FOR NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT TO DISCHARGE POLLUTANTS TO WATERS OF THE STATE OF ALABAMA

Date: February 12, 2020 **Prepared By:** Alex Chavers

NPDES Permit No. AL0002828

1. **Name and Address of Applicant:**

   Westrock Mill Company LLC
   28270 U S Hwy 80 West
   Demopolis, AL 36732-9701

2. **Name and Address of Facility:**

   Westrock Mill Company
   Demopolis Mill
   28270 U.S. Highway 80 West
   Demopolis, Alabama 36732

3. **Description of Applicant's Type of Facility and/or Activity Generating the Discharge:**

   Individual Permit - Standard

4. **Applicant's Receiving Waters**

Receiving Waters	Classification
Tombigbee River	Tier 1, F&W
UT to Tombigbee River	F&W

   For the Outfall latitude and longitude see the permit application.

5. **Permit Conditions:**

   See attached Rationale and Draft Permit.

6. **PROCEDURES FOR THE FORMULATION OF FINAL DETERMINATIONS**

   a. **Comment Period**

   The Alabama Department of Environmental Management proposes to issue this NPDES permit subject to the limitations and special conditions outlined above. This determination is tentative.

Birmingham Branch
110 Vulcan Road
Birmingham, AL 35209-4702
(205) 942-6168
(205) 941-1603 (FAX)

Decatur Branch
2715 Sandlin Road, S.W.
Decatur, AL 35603-1333
(256) 353-1713
(256) 340-9359 (FAX)

Mobile Branch
2204 Perimeter Road
Mobile, AL 36615-1131
(251) 450-3400
(251) 479-2593 (FAX)

Mobile-Coastal
3664 Dauphin Street, Suite B
Mobile, AL 36608
(251) 304-1176
(251) 304-1189 (FAX)

Interested persons are invited to submit written comments on the draft permit to the following address:

Russell A. Kelly, Chief
Permits and Services Division
Alabama Department of Environmental Management
1400 Coliseum Blvd
(Mailing Address: Post Office Box 301463; Zip 36130-1463)
Montgomery, Alabama 36110-2059
(334) 271-7714

All comments received prior to the closure of the public notice period (see public notice for date) will be considered in the formulation of the final determination with regard to this permit.

b. Public Hearing

A written request for a public hearing may be filed within the public notice period and must state the nature of the issues proposed to be raised in the hearing. A request for a hearing should be filed with the Department at the following address:

Russell A. Kelly, Chief
Permits and Services Division
Alabama Department of Environmental Management
1400 Coliseum Blvd
(Mailing Address: Post Office Box 301463; Zip 36130-1463)
Montgomery, Alabama 36110-2059
(334) 271-7714

The Director shall hold a public hearing whenever it is found, on the basis of hearing requests, that there exists a significant degree of public interest in a permit application or draft permit. The Director may hold a public hearing whenever such a hearing might clarify one or more issues involved in the permit decision. Public notice of such a hearing will be made in accordance with ADEM Admin. Code r. 335-6-6-.21.

c. Issuance of the Permit

All comments received during the public comment period shall be considered in making the final permit decision. At the time that any final permit decision is issued, the Department shall prepare a response to comments in accordance with ADEM Admin. Code r. 335-6-6-.21. **The permit record, including the response to comments, will be available to the public via the eFile System** (http://app.adem.alabama.gov/eFile/) **or an appointment to review the record may be made by writing the Permits and Services Division at the above address.**

Unless a request for a stay of a permit or permit provision is granted by the Environmental Management Commission, the proposed permit contained in the Director's determination shall be issued and effective, and such issuance will be the final administrative action of the Alabama Department of Environmental Management.

d. Appeal Procedures

As allowed under ADEM Admin. Code chap. 335-2-1, any person aggrieved by the Department's final administrative action may file a request for hearing to contest such action. Such requests should be received by the Environmental Management Commission within thirty days of issuance of the permit. Requests should be filed with the Commission at the following address:

Alabama Environmental Management Commission
1400 Coliseum Blvd
(Mailing Address: Post Office Box 301463; Zip 36130-1463)
Montgomery, Alabama 36110-2059

All requests must be in writing and shall contain the information provided in ADEM Admin. Code r. 335-2-1-.04.

ADEM PERMIT RATIONALE

PREPARED DATE: December 2, 2019
PREPARED BY: Alex Chavers
REVISED DATE: February 12, 2020

Permittee Name: WestRock Mill Company, LLC

Facility Name: WestRock Mill Company, LLC - Demopolis

Permit Number: AL0002828

PERMIT IS INITIAL REISSUANCE DUE TO EXPIRATION

DISCHARGE SERIAL NUMBERS & DESCRIPTIONS:

DSN001:	Process wastewater associated with pulp and paper manufacturing, sanitary wastewater, and stormwater runoff
DSN005:	Landfill leachate, ash pond overflow, boiler blowdown, demineralizer wastewater, stormwater runoff, process wastewater from the Saltwell Chip Mill, including wet-deck log storage waster from DSN05A1
DSN006:	Stormwater runoff from the borrow pit area
DSN007 – 008:	Storm water runoff from log truck entrance roads
DSN009 – 010:	Storm water runoff from the bark pile and surrounding areas
DSN01A:	A-line (Hardwood) Bleach plant internal requirements
DSN01B:	B-Line (Softwood) Bleach Plant internal requirements
DSN05A:	Contact water and storm water runoff from wet-deck log storage

INDUSTRIAL CATEGORY: 40 CFR 430: Subpart B – Unbleached Kraft Subcategory
40 CFR 429: Subpart I – Wet Storage Subcategory

MAJOR: Y

STREAM INFORMATION:

Receiving Stream:	Tombigbee River (DSN001, DSN005, DSN006, DSN009, DSN010)
Classification:	Fish and Wildlife
River Basin:	Tombigbee
7Q10:	811 CFS
7Q2:	2033 CFS
1Q10:	608 CFS
Annual Average Flow:	23811 CFS
303(d) List:	NO
Impairment:	N/A
TMDL:	NO

Receiving Stream:	Unnamed Tributary to Tombigbee River (DSN007, DSN008)
Classification:	Fish and Wildlife
River Basin:	Tombigbee
7Q10:	0 CFS

01AS:

Parameter	Monthly Avg Loading	Daily Max Loading	Daily Min Concentration	Monthly Avg Concentration	Daily Max Concentration	Sample Frequency	Sample Type	Basis*
Chloroform	6.384 lbs/day	10.671 lbs/day	-	-	-	Semi-Annually	Composite	EGL/ABS
2,4,6-Trichlorophenol	-	-	-	-	2.4999 ug/l	Semi-Annually	Composite	EGL
2,3,7,8-Tetrachlorodibenzo-P-Dioxin	-	-	-	-	9.9999 pg/l	Semi-Annually	Composite	EGL
2,3,7,8 Tetrachlorodibenzofuran (TCDF)	-	-	-	-	31.9 pg/l	Semi-Annually	Composite	EGL
Pentachlorophenol	-	-	-	-	4.9999 ug/l	Semi-Annually	Composite	EGL
Flow, In Conduit or Thru Treatment Plant	REPORT MGD	REPORT MGD	-	-	-	Semi-Annually	Calculated	EGL
3,4,6-Trichloroguaiacol	-	-	-	-	2.4999 ug/l	Semi-Annually	Composite	EGL
3,4,6-Trichlorocatechol	-	-	-	-	4.9999 ug/l	Semi-Annually	Composite	EGL
2,4,5-Trichlorophenol	-	-	-	-	2.4999 ug/l	Semi-Annually	Composite	EGL
3,4,5-Trichloroguaiacol	-	-	-	-	2.4999 ug/l	Semi-Annually	Composite	EGL
3,4,5 Trichlorocatechol	-	-	-	-	4.999 ug/l	Semi-Annually	Composite	EGL
Tetrachloroguaiacol	-	-	-	-	4.9999 ug/l	Semi-Annually	Composite	EGL
Tetrachlorocatechol	-	-	-	-	4.9999 ug/l	Semi-Annually	Composite	EGL
Trichlorosyringol	-	-	-	-	2.4999 ug/l	Semi-Annually	Composite	EGL
4,5,6-Trichloroguaiacol	-	-	-	-	2.4999 ug/l	Semi-Annually	Composite	EGL
2,3,4,6-Tetrachlorophenol	-	-	-	-	2.4999 ug/l	Semi-Annually	Composite	EGL

01BS:

Parameter	Monthly Avg Loading	Daily Max Loading	Daily Min Concentration	Monthly Avg Concentration	Daily Max Concentration	Sample Frequency	Sample Type	Basis*
Chloroform	2.5 lbs/day	4.26 lbs/day	-	-	-	Semi-Annually	Composite	EGL/ABS
2,4,6-Trichlorophenol	-	-	-	-	2.4999 ug/l	Semi-Annually	Composite	EGL
2,3,7,8-Tetrachlorodibenzo-P-Dioxin	-	-	-	-	9.9999 pg/l	Semi-Annually	Composite	EGL
2,3,7,8 Tetrachlorodibenzofuran (TCDF)	-	-	-	-	31.9 pg/l	Semi-Annually	Composite	EGL

Pentachlorophenol	-	-	-	-	4.9999 ug/l	Semi-Annually	Composite	EGL
Flow, In Conduit or Thru Treatment Plant	REPORT MGD	REPORT MGD	-	-	-	Semi-Annually	Calculated	EGL
3,4,6-Trichloroguaiacol	-	-	-	-	2.4999 ug/l	Semi-Annually	Composite	EGL
3,4,6-Trichlorocatechol	-	-	-	-	4.9999 ug/l	Semi-Annually	Composite	EGL
2,4,5-Trichlorophenol	-	-	-	-	2.4999 ug/l	Semi-Annually	Composite	EGL
3,4,5-Trichloroguaiacol	-	-	-	-	2.4999 ug/l	Semi-Annually	Composite	EGL
3,4,5 Trichlorocatechol	-	-	-	-	4.9999 ug/l	Semi-Annually	Composite	EGL
Tetrachloroguaiacol	-	-	-	-	4.9999 ug/l	Semi-Annually	Composite	EGL
Tetrachlorocatechol	-	-	-	-	4.9999 ug/l	Semi-Annually	Composite	EGL
Trichlorosyringol	-	-	-	-	2.4999 ug/l	Semi-Annually	Composite	EGL
4,5,6-Trichloroguaiacol	-	-	-	-	2.4999 ug/l	Semi-Annually	Composite	EGL
2,3,4,6-Tetrachlorophenol	-	-	-	-	2.4999 ug/l	Semi-Annually	Composite	EGL

0011:

Parameter	Monthly Avg Loading	Daily Max Loading	Daily Min Concentration	Monthly Avg Concentration	Daily Max Concentration	Sample Frequency	Sample Type	Basis*
BOD, 5-Day (20 Deg. C)	15963 lbs/day	30677 lbs/day	-	-	-	3X Weekly test	Calculated	EGL/ABS
BOD, 5-Day (20 Deg. C)	0 lbs/day	0 lbs/day	-	-	-	3X Weekly test	Calculated	WQBEL
BOD, 5-Day (20 Deg. C)	REPORT lbs/day	REPORT lbs/day	-	-	-	3x Weekly test	Composite	WQBEL
pH	-	-	6.0 S.U.	-	9.0 S.U.	3X Weekly test	Grab	EGL
Solids, Total Suspended	29779 lbs/day	55354 lbs/day	-	-	-	3X Weekly test	Composite	EGL/ABS
Nitrogen, Ammonia Total (As N)	-	-	-	-	REPORT mg/l	Monthly	Composite	BPJ
Nitrogen, Kjeldahl Total (As N)	-	-	-	-	REPORT mg/l	Monthly	Composite	BPJ
Nitrite Plus Nitrate Total 1 Det. (As N)	-	-	-	-	REPORT mg/l	Monthly	Composite	BPJ
Phosphorus, Total (As P)	-	-	-	-	REPORT mg/l	Monthly	Composite	BPJ

Flow, In Conduit or Thru Treatment Plant	REPORT MGD	REPORT MGD	-	-	-	Continuous	Totalizer	BPJ

001S:

Parameter	Monthly Avg Loading	Daily Max Loading	Daily Min Concentration	Monthly Avg Concentration	Daily Max Concentration	Sample Frequency	Sample Type	Basis*
Halogens, Adsorbable Organic	1378 lbs/day	2104 lbs/day	-	-	-	Semi-Annually	Composite	EGL/ABS

001Y:

Parameter	Monthly Avg Loading	Daily Max Loading	Daily Min Concentration	Monthly Avg Concentration	Daily Max Concentration	Sample Frequency	Sample Type	Basis*
2,3,7,8-Tetrachlorodibenzo-P-Dioxin	-	0.000000176 lbs/day	-	-	REPORT ppq	Annually	Composite	WQBEL

001Q:

Parameter	Monthly Avg Loading	Daily Max Loading	Daily Min Concentration	Monthly Avg Concentration	Daily Max Concentration	Sample Frequency	Sample Type	Basis*
Pentachlorophenol	-	3.63 lbs/day	-	-	-	Quarterly	Grab	EGL
Trichlorophenol	-	22.3 lbs/day	-	-	-	Quarterly	Grab	EGL

001T:

Parameter	Monthly Avg Loading	Daily Max Loading	Daily Min Concentration	Monthly Avg Concentration	Daily Max Concentration	Sample Frequency	Sample Type	Basis*
Toxicity, Ceriodaphnia Chronic	-	0 pass(0)/fail(1)	-	-	-	Annually	Composite	WQBEL
Toxicity, Pimephales Chronic	-	0 pass(0)/fail(1)	-	-	-	Annually	Composite	WQBEL

0051:

Parameter	Monthly Avg Loading	Daily Max Loading	Daily Min Concentration	Monthly Avg Concentration	Daily Max Concentration	Sample Frequency	Sample Type	Basis*
BOD, 5-Day (20 Deg. C)	REPORT lbs/day	REPORT lbs/day	-	-	-	3X Weekly test	24-Hr Composite	EGL
pH	-	-	6.0 S.U.	-	9.0 S.U.	Monthly	Grab	BPJ
Solids, Total Suspended	REPORT lbs/day	REPORT lbs/day	-	REPORT mg/l	REPORT mg/l	3X Weekly test	24-Hr Composite	EGL

Oil & Grease	-	-	-	-	15.0 mg/l	Monthly	Grab	BPJ
Flow, In Conduit or Thru Treatment Plant	-	REPORT MGD	-	-	-	3X Weekly test	Instantaneous	BPJ

007S - 010S:

Parameter	Monthly Avg Loading	Daily Max Loading	Daily Min Concentration	Monthly Avg Concentration	Daily Max Concentration	Sample Frequency	Sample Type	Basis*
pH	-	-	REPORT S.U.	-	REPORT S.U.	Semi-Annually	Grab	BPJ
Solids, Total Suspended	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	BPJ
Oil & Grease	-	-	-	-	15 mg/l	Semi-Annually	Grab	BPJ
Flow, In Conduit or Thru Treatment Plant	-	REPORT MGD	-	-	-	Semi-Annually	Estimate	BPJ

006Y:

Parameter	Monthly Avg Loading	Daily Max Loading	Daily Min Concentration	Monthly Avg Concentration	Daily Max Concentration	Sample Frequency	Sample Type	Basis*
pH	-	-	REPORT S.U.	-	REPORT S.U.	Semi-Annually	Grab	BPJ
Solids, Total Suspended	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	BPJ
Oil & Grease	-	-	-	-	15 mg/l	Semi-Annually	Grab	BPJ
Flow, In Conduit or Thru Treatment Plant	-	REPORT MGD	-	-	-	Semi-Annually	Estimate	BPJ

05A1:

Parameter	Monthly Avg Loading	Daily Max Loading	Daily Min Concentration	Monthly Avg Concentration	Daily Max Concentration	Sample Frequency	Sample Type	Basis*
pH	-	-	6.0 S.U.	-	9.0 S.U.	Monthly	Grab	EGL
Flow, In Conduit or Thru Treatment Plant	-	REPORT MGD	-	-	-	Monthly	Instantaneous	BPJ

*Basis for Permit Limitation

- BPJ – Best Professional Judgment
- WQBEL – Water Quality Based Effluent Limits
- EGL – Federal Effluent Guideline Limitations
- 303(d) – 303(d) List of Impaired Waters
- TMDL – Total Maximu m Daily Load Requirements
- ABS - Antibacksliding

DSN001
Discharges from this outfall include treated process wastewater, sanitary wastewater, boiler blowdown, landfill leachate, and most of the stormwater from the mill site.

Best Professional Judgment (BPJ)

Flow
Flow monitoring is continued as totalized daily readings.

pH
ADEM Administrative Code, Division 6 Regulations, specifically 335-6-10-.09(5)(e)2 – Specific Water Quality for Fish and Wildlife classified streams states: "Sewage, industrial waste or other wastes shall not cause the pH to deviate more than one unit from then normal or natural pH, nor be less than 6.0, nor greater than 8.5 standard units." The discharge is not expected to have a significant effect on the receiving stream due to the low ratio of effluent flow to stream flow; therefore, the existing permit limits will be continued in this permit issuance.

Nutrients
Monitoring for Total Kjeldahl Nitrogen, Nitrates + Nitrites, and Total Phosphorus will be continued in this permit issuance. In addition, it is proposed to add Total Ammonia as Nitrogen to the list of nutrients to be monitored. The proposed frequency is once per month during the growing season (April to October).

Water Quality Based Effluent Limits (WQBEL)

Biochemical Oxygen Demand (5-Day) (May 1 to November 30)
Historical monitoring has shown that the sag point in the Tombigbee River is located downstream of the Georgia Pacific Consumer Operations, LLC (Georgia-Pacific), which operated under NPDES Permit AL0003301. Through extensive modeling, an allocation table for BOD5 has been developed, which bases the allowable loading to the receiving stream on both the flow and temperature of the receiving stream.

The table provide acceptable daily allocations of BOD_5 for the facility to ensure that the minimum in-stream D.O. of 5 mg/L is met below Beach Bluff at mile 138 of the Tombigbee River. From the Demopolis Lock and Dam to Beach Bluff, the D.O. water quality standard is 4.0 mg/L. The proportion of total allocation for the facility is based on production and has previously been agreed upon by Westrock and Georgia-Pacific.

This permit issuance will continue the requirements to determine the daily allowable BOD_5 limit by looking up the value that corresponds to the previous day's flow at Demopolis Lock and Dam and the present day's river temperature. In addition, the facility has previously been allowed to comply with the BOD_5 limit by injecting additional oxygen into the river to offset the effects. This allowance will be continued in this permit issuance with 4.2 lbs of oxygen being required to offset 1 lb BOD_5.

$$Net\ BOD_5 = BOD_5(discharged) - \frac{lbs\ O_2(injected)}{4.2}$$

Compliance with the daily maximum requirements will be met as long as the Net BOD_5 does not exceed the allowable BOD_5 for any given day multiplied by a factor of 1.92. The use of this factor is to be consistent with the ratio of daily max/daily average from the BPT guidelines. The monthly average limit is the monthly average of the BOD_5 limitations.

Total Mill BOD
Water-quality based effluent limits are based on a total mill contribution of BOD5; therefore, DSN005 contributions must be included in the total when determining compliance with these limitations. Specific methods of determining the values to report will be included in Part I of the permit.

NOTE: At no time may the discharge exceed the limits calculated based on the effluent guidelines.

TCDD

TCDD (2,3,7,8-Tetrachlorodibenzo-P-Dioxin) is limited internally at DSN01A and DSN01B by the effluent guideline limitations found at 40 CFR 430.24. Water-quality based effluent limitations based on the Human Health Criteria will be applied at DSN001. The in-stream water quality standard for Human Health Criteria (Fish Consumption) is $2.7x10^{-11}$ ug/L.

The limitations for TCDD will be production-weighted between Westrock and Georgia Pacific due to their close proximity on the receiving stream.

Georgia-Pacific Production:	1769.15 tons/day
Westrock Mill Production:	1279 tons/day
Annual Average Flow:	12593 MGD

$$TCDD\left(\frac{lbs}{day}\right) = \frac{(2.7x10^{-11}\frac{mg}{L})(8.34)(12814\ MGD)(1279\ \frac{tons}{day})}{(1279\ \frac{tons}{day} + 1769.15\ \frac{tons}{day})} = .00000121\ \frac{lbs}{day}$$

*The river flow used to calculate the lbs/day allocation is the annual average flow in MGD

The calculated limitation is less stringent than the existing limitation, which the facility has shown the ability to meet; therefore, the current permit limit will be continued in this permit issuance.

Toxicity Testing

The facility will continue to be required to perform whole effluent toxicity testing on an annual basis. Based on the results of a CORMIX model, the toxicity tests will be required on a chronic basis due to a limiting dilution of less than 100:1. The department determined an IWC of 2.6% for the summer season and 2% for the winter season. The facility has previously tested and been in compliance when testing at an IWC of 4%; therefore, the IWC of 4% will be continued in this permit issuance.

Reasonable Potential Analysis

A reasonable potential analysis (Attachment B) was performed using analytical data submitted with the application for DSN001. No parameters included in that analysis showed a reasonable potential to violate water quality standards; therefore, no additional limitations are proposed to be included in this permit issuance.

Federal Effluent Guideline Limitations (EGL)

The facility is subject to 40 CFR430 – Pulp and Paper Manufacturing Category. A summary of the effluent guideline limitations can be found in Attachment A.

Production Basis

The facility's discharges are specifically subject to 40 CFR 430 – Subpart B: Unbleached Kraft Subcategory, which uses a reasonable measure of production to determine allowable loadings of these pollutants.

The allowable loadings for BOD, TSS, Pentachlorophenol, and Trichlorophenol considered for this permit issuance are based on the reasonable measure of bleached market kraft pulp and bleached kraft paperboard submitted with the application

The allowable loadings for AOX and Chloroform considered for this permit issuance are based on the reasonable measure of unbleached kraft pulp production entering the first stage of the bleach plant submitted with the application.

pH

The limitations for pH are consistent with the applicable effluent guideline limitations.

Biochemical Oxygen Demand (5-Day), Total Suspended Solids
These parameters are regulated under 40 CFR 430: Subpart B – Unbleached Kraft Subcategory. The calculated limitations are less stringent than the existing permit limitations; therefore, the existing limitations will be continued.

Pentachlorophenol, Trichlorophenol
These parameters are regulated under 40 CFR 430: Subpart B – Unbleached Kraft Subcategory. The previous permit did not include the limitations for pentachlorophenol and trichlorophenol due to the facility certifying non-use. For this permit issuance, it is proposed to include the limitations; however, in lieu of monitoring, the facility can submit a certification of non-use by reporting *9 on the discharge monitoring report.

Adbsorbable Organic Halogens (AOX)
Limitations for AOX are production-based. The calculated limitations are less stringent than the existing permit limitations; therefore, the existing limitations will be continued.

A reduction in monitoring frequency from once per quarter to semi-annual was requested for Chloroform. EPA's *Interim Guidance for Performance-Based Reductions in Monitoring Frequencies* does not make any suggestions for frequencies less than once per quarter. Based on the available data, the probability that a reduction in frequency will cause violations to go unnoticed is not increased due to a reduction in monitoring frequency; therefore, semi-annual monitoring is proposed for this permit issuance.

303(d) List of Impaired Waters/Total Maximum Daily Load (TMDL)
The receiving stream is not listed on the 2018 303(d) List nor has a TMDL been developed; therefore, no additional monitoring requirements are proposed for this permit issuance.

DSN01A (Hardwood Bleach Plant)/DSN01B (Softwood Bleach Plant)
As specified in 40 CFR 430.24, monitoring requirements are imposed on each fiber line not using an exclusively TCF bleaching process. A summary of the effluent guideline calculations can be seen in Attachment A.

Flow
Flow will continue to be reported in this permit issuance for each line.

TCDD, Chlorinated Phenolics
The daily maximum limitations for TCDD (2,3,7,8-tetrachlorodibenzo-p-dioxin) and chlorinated phenolics are expressed as less than the minimum level of detection specified at 40 CFR 430.01(i). No monthly average limitations are imposed for these parameters.

TCDF
The daily maximum for TCDF (2,3,7,8-tetrachlorodibenzofuran) imposed by the guidelines is 31.9 picograms per liter (pg/L). No monthly average limitation is imposed for this parameter.

Adbsorbable Organic Halogens (AOX)
This parameter will be applied at DSN001 and is discussed under the **Federal Effluent Guidelines (EGL)** section for those outfalls.

Chloroform
Limitations for chloroform were determined based on the unbleached pulp production. The limitations for DSN01A and DSN01B are higher than the current permit limitations; therefore, the current permit limitations will be continued in this permit issuance.

A reduction in monitoring frequency from once per quarter to semi-annual was requested for Chloroform. EPA's *Interim Guidance for Performance-Based Reductions in Monitoring Frequencies* does not make any suggestions for frequencies less than once per quarter. Based on the available data, the probability that a reduction in frequency will cause violations to go unnoticed is not increased due to a reduction in monitoring frequency; therefore, *semi-annual* monitoring is proposed for this permit issuance.

DSN005/05A

Discharges from this outfall consist of wastewater from the Saltwell Chip Mill, storm water runoff from the Lime Mud Landfill, Solid Waste Landfill, Ash Basin, and most areas on the east side of the mill, and discharges from DSN05A. DSN05A consist of process wastewater and storm water runoff associated with wet decking.

Landfill Leachate

The facility discharges landfill leachate, which is regulated under 40 CFR 445, through its process wastewater outfall DSN001. 40 CFR 445.1(e) specifies that the regulations therein "do not apply to dischargers of landfill wastewater from landfills operated in conjunction with other industrial or commercial operations when the landfill only receives wastes generated by the industrial or commercial operations directly associated with the landfill."

Effluent Guidelines

The previous permit included limitations at DSN05A based on 40 CFR 430.22(b) for "wet barking", defined at 40 CFR 430.01(r). This application was incorrect because wastewater from the barking operations does not discharge through DSN05A, instead comingling with wastewater from DSN05A and discharging through DSN005. Additionally, the barking operations performed by the facility do not meet the definition of "wet barking" and is considered a dry barking operations using water only as a mist for dust suppression and drum lubrication.

Flow

Flow monitoring will be continued to evaluate the volume of wastewater discharged from the facility.

pH

The existing limitations of 6.0 to 9.0 S.U. will be continued in this permit issuance for both DSN005 and DSN05A. The limitation is consistent with the applicable effluent guidelines at DSN05A and more stringent than applicable effluent guidelines at DSN005. In addition, the discharge is not expected to have a significant effect on the receiving stream due to the low ratio of effluent flow to stream flow.

Oil and Grease

The daily maximum limitation for Oil & Grease at DSN005 will be continued in this permit issuance. This limitation has been shown to be achievable using BMPs and should prevent the occurrence of a sheen in the receiving stream.

Biochemical Oxygen Demand (5-Day), Total Suspended Solids*

Limitations and monitoring requirements for BOD5 and TSS will be removed from DSN05A based on the *Effluent Guidelines* section above. Monitoring requirements will continue to be required at DSN005 for the purposes of meeting WQBELs at DSN001.

*Refer to section *Total Mill BOD* under the DSN001 discussion for further reporting requirements of BOD5 discharged through DSN005.

Stormwater Monitoring (DSN006 – DSN010)

DSN006 – Storm water runoff from the borrow pit
DSN007, DSN008* – Storm water runoff from log entrance roads
DSN009, DSN010* – Storm water runoff from the bark pile and surrounding areas

*DSN007 is considered representative of outfalls DSN007 and DSN008
*DSN009 is considered representative of outfalls DSN009 and DSN010

DSN009 and DSN010 are storm water outfalls currently covered under ALG060521, which provides coverage for storm water associated with the lumber and wood products industry. The drainage area for these two outfalls primarily includes the bark pile and associated activities. It is proposed to include coverage for these outfalls in this permit issuance. Monitoring requirements for DSN009 and DSN010 will be consistent with existing stormwater outfalls to ensure the effectiveness of the facility's BMPs.

Monitoring Frequency

The monitoring frequencies of stormwater will be continued from the existing permit requirements. DSN006 is required on an annual basis and DSN007 – DSN010 are required on a semi-annual basis.

Flow
Flow from stormwater outfalls will continue to be reported for all stormwater outfalls. Stormwater flow can be determined using any method specified in Part IV.A of the permit.

pH, Total Suspended Solids
Based on the nature of the operations at the facility, monitoring stormwater for these parameters is expected to provide a measure of effectiveness of the facility's BMP plans. Total Suspended Solids shall be reported as a concentration.

Oil & Grease
The previous permit included narrative criteria of "no sheen" in the receiving water; however, it is proposed to include a daily maximum limitation of 15.0 mg/L. The limitation is consistent with other similar stormwater discharges, achievable with BMPs and has been shown to prevent the occurrence of a sheen in the receiving stream.

Best Management Practices (BMPs) are believed to be the most effective way to control the contamination of stormwater from areas of industrial activities. This facility is required to maintain a BMP plan. The requirements of the BMP plan call for minimization of stormwater contact with waste materials, products and by-products, and for prevention of spills or loss of fluids from equipment maintenance activities. The effectiveness of the BMPs will be measured through the monitoring of the pollutants of concern.

316(b) Cooling Water Intake Structure Requirements
Section 316(b) of the Clean Water Act requires that facilities minimize adverse environmental impacts resulting from the operation of cooling water intake structures (CWIS) by using the "best technology available" (BTA). U.S. EPA has promulgated rules to implement these requirements under Phase I, Phase II, and Phase III of the rules; however, many facilities that operate intake structures do not fall into these categories and are classified as miscellaneous facilities. For these miscellaneous facilities, a BTA determination must be made using BPJ.

The cooling water intake structure (CWIS) used by the permittee has been evaluated using available information. At this time, the Department has determined, using BPJ, that the cooling water intake structure represents the best technology available (BTA) to minimize adverse environmental impact in accordance with Section 316 (b) of the Federal Clean Water Act (33 U.S.C. section 1326) due to the through screen actual intake velocity being less than 0.5 ft/s and the design intake being less than 5% of the mean annual flow.

The requirements that facilities must comply with are listed below:

1. The permittee shall submit the following information at least 180 days prior to expiration of this permit:
   - design in-take flow of the CWIS;
   - percentage of in-take flow, based on highest monthly average in last 5 years, used for cooling purposes;
   - an estimate of the in-take flow reduction at the facility based upon the use of a 100 percent (or some lesser percentage) closed-cycle re-circulating cooling water system compared to a conventional once-through cooling water system;
   - through screen design in-take flow velocity;
   - any impingement and entrainment data that may have been collected based on the operation of the facility's CWIS, collected since the effective date of this NPDES permit; and,
   - a detailed description of any changes in the operation of the CWIS, or changes in the type of technologies used at the CWIS such as screens or other technologies affecting the rates of impingement and/or entrainment of fish and shellfish.

2. The permittee is required to operate and maintain the CWIS in a manner that minimizes impingement and entrainment levels. Documentation detailing the steps that have and are being taken to minimize the impingement and entrainment levels shall be maintained on site and made available upon request.

3. The Permittee must keep records of all submissions that are part of the permit application pertaining to the CWIS until the subsequent permit is issued to the Permittee.

4. Nothing in this Permit authorizes take for the purposes of a facility compliance with the Endangered Species Act.

Stream Monitoring Requirements

The facility was previously required to conduct river monitoring surveys on a periodic basis for the period from May to November inclusive; however, after a review of historical stream monitoring data by the Departments water quality branch, it is proposed to reduce the required monitoring period to June through October inclusive. The specific details of the river monitoring requirements can be found in Part IV.F of the permit. The previous permit included language that made river surveys required outside of the period noted above if the flow was below a certain threshold; however, this language was updated to require river surveys only during the period noted above, regardless of river flow.

Reporting Requirements

In addition to requiring the submission of discharge monitoring reports, Part IV of the permit requires the permittee to submit other periodic reports to the Departments. These reports include laboratory results of the toxicity testing required annually at DSN001, the results of river monitoring surveys during the periods noted in the **Stream Monitoring Requirements**, and quarterly and annual reports associated with the Spent Pulping Liquor.

In order to show compliance with the submittal of these documents, the permittee will be required to indicate, through the discharge monitoring report, that such reports were submitted in a timely manner.

Revision (February 12, 2020)

Based on comments submitted by the facility, the Department has made the following changes to the permit/rationale:

- Part I.A, Page 1 of the permit has been modified to reflect the appropriate sample types for BOD5. A sample type of composite shall apply to the actual BOD5 reported for DSN001 and a sample type of calculated shall apply to the cumulative DSN001 and DSN005 BOD5 and the net BOD5.
- Part I.A, Page 3 of the permit has been modified to require river runs only if the D.O. monitoring gauge at the Highway 114 Bridge measures below 4.0 mg/L.
- Limitations and monitoring requirements have been modified at DSN005/DSN05A to remove limitations at DSN05A. The rationale discussion has been modified providing justification for the changes.
- DSN001Y was corrected to reflect the previous permit's 2,3,7,8-TCPD limitation of 0.000000176 lbs/day.
- Flow monitoring at DSN01AQ and DSN01BQ was corrected to be semi-annual, consistent with other monitoring requirements at these monitoring points.
- The frequencies of stormwater monitoring were revised to be consistent with existing permit requirements.

ATTACHMENT A: EFFLUENT LIMITATION GUIDELINES

Permit Limits Summary

Pollutant	*Daily Maximum (lbs/day)*	*Monthly Average (lbs/day)*	*Basis*
Current Permit			
BOD5 (Market Pulp)	6,762	3,523	2003 Production Basis (See Calculations)
BOD5 (Paperboard)	23,915	12,439	2003 Production Basis (See Calculations)
BOD5 (Total)	30,677	15,963	2003 Permit Issuance
TSS (Market Pulp)	13,306	7,178	2003 Production Basis (See Calculations)
TSS (Paperboard)	42048	22601	2003 Production Basis (See Calculations)
TSS (Total)	55354	29779	2003 Permit Issuance
AOX	2104	1379	2003 Production Basis (See Calculations)
Pentachlorophenol	3.63	-	2003 Production Basis (See Calculations)
Trichlorophenol	22.34	-	2003 Production Basis (See Calculations)
Chloroform (A-Bleachery)	10.67	6.38	2003 Production Basis (See Calculations)
Chloroform (B-Bleachery)	4.26	2.55	2003 Production Basis (See Calculations)
Renewal Application			
BOD5 (Market Pulp)	9,647	5,026	June 1, 2017 - May 31, 2018 Production
BOD5 (Paperboard)	26,644	13,859	June 1, 2017 - May 31, 2018 Production
BOD5 (Total)	36,291	18,885	
TSS (Market Pulp)	18,982	10,240	June 1, 2017 - May 31, 2018 Production
TSS (Paperboard)	46847	25180	June 1, 2017 - May 31, 2018 Production
TSS (Total)	65828	35420	
AOX	2421	1586	May 1, 2016 - April 30, 2017
Pentachlorophenol	4.31	-	June 1, 2017 - May 31, 2018 Production
Trichlorophenol	27.0	-	June 1, 2017 - May 31, 2018 Production
Chloroform (A-Bleachery)	12.2	7.3	May 1, 2016 - April 30, 2017
Chloroform (B-Bleachery)	5.4	3.2	May 1, 2016 - April 30, 2017
Final Permit Limitations			
BOD5 (Total)	30,677	15,963	Current Permit
TSS (Total)	55354	29779	Current Permit
AOX	2104	1378	Current Permit
Pentachlorophenol	3.63	-	Current Permit
Trichlorophenol	22.3	-	Current Permit
Chloroform (A-Bleachery)	10.671	6.384	Current Permit
Chloroform (B-Bleachery)	4.26	2.5	Current Permit

Renewal Application Calculations

40 CFR 430 - Pulp and Paper Production Point Source Category

Subpart B - Bleached Papergrade Kraft and Soda Subcateogry
40 CFR 430.22(a) - Best Practicable Technology (BPT)/Best Conventional Technology (BCT)

Bleached kraft facilities where market pulp is produced

Bleached Kraft Pulp	312.20 air-dry tons/day
Off the machine production	624,400 lbs/day

*Pollutant**	Continuous Discharges		Cluster Limitations	
	Daily Maximum (lbs/1000 lbs product)	*Monthly Average (lbs/1000 lbs product)*	*Daily Maximum (lbs/day)*	*Monthly Average (lbs/day)*
BOD_5	15.45	8.05	9647	5026
TSS	30.4	16.4	18982	10240

*pH within the range of 5.0 to 9.0 S.U.

40 CFR 430.24 Best Available Technology (BAT)

Pollutant	Continuous Discharges		Cluster Limitations	
	Daily Maximum (lbs/1000 lbs product)	*Monthly Average (lbs/1000 lbs product)*	*Daily Maximum (lbs/day)*	*Monthly Average (lbs/day)*
Pentachlorophenol	0.0019	-	1.19	-
Trichlorophenol	0.012	-	7.49	-

Subpart B - Bleached Papergrade Kraft and Soda Subcateogry
40 CFR 430.22 - Best Practicable Technology (BPT)/Best Conventional Technology (BCT)

Bleached kraft facilies where paperboard, coarse paper, and tissue paper are produced

Bleached Kraft Paperboard	975.97 machine-dried tons/day
Off the machine production	1,951,940 lbs/day

*Pollutant**	Continuous Discharges		Cluster Limitations	
	Daily Maximum (lbs/1000 lbs product)	*Monthly Average (lbs/1000 lbs product)*	*Daily Maximum (lbs/day)*	*Monthly Average (lbs/day)*
BOD_5	13.65	7.1	26644	13859
TSS	24.0	12.9	46847	25180

*pH within the range of 5.0 to 9.0 S.U.

40 CFR 430.24 Best Available Technology (BAT)

Pollutant	Continuous Discharges		Cluster Limitations	
	Daily Maximum (lbs/1000 lbs product)	*Monthly Average (lbs/1000 lbs product)*	*Daily Maximum (lbs/day)*	*Monthly Average (lbs/day)*
Pentachlorophenol	0.0016	-	3.12	-
Trichlorophenol	0.01	-	19.52	-

Total Allocations (Subpart B)

Pollutant	Daily Maximum	
	Daily Maximum (lbs/day)	*Monthly Average (lbs/day)*
BOD_5	36291	18885
TSS	65828	35420
Pentachlorophenol**	4.31	-
Trichlorophenol**	27.01	-

*pH within the range of 5.0 to 9.0 S.U.

**The current permit does not include limitations of for chlorophenolics due to an annual certification of non-use

40 CFR 430.24 Best Available Technology (BAT)
Requirements for Each Fiber Line not Using an Exclusively TCF Bleaching Process

A-Bleachery (Hardwood)	883.50	air-dry tons/day
2003 Permit Basis*	1,767,000	lbs/day

B-Bleachery (Softwood)	389.50	air-dry tons/day
2003 Permit Basis*	779,000	lbs/day

Pollutant	**Continuous Discharges**		**Cluster Limitations**	
	Daily Maximum (lbs/1000 lbs product)	*Monthly Average (lbs/1000 lbs product)*	*Daily Maximum (lbs/day)*	*Monthly Average (lbs/day)*
AOX	0.951	0.623	2421	1586
COD	(e)	(e)	(e)	(e)

(e) [Reserved]

*The production numbers are based on the monthly average of the highest production year of the last 5 years

DSN01A (Hardwood Bleachery)
Production 1,767,000 lbs/day

Pollutant	**Cluster Guideline Factor**		**Cluster Limitations**		
	Daily Maximum (g/1000 kg product)	*Monthly Average (g/1000 kg product)*	*Daily Maximum*	*Monthly Average*	
TCDD	n/a	n/a	<10 pg/L	n/a	
TCDF	n/a	n/a	31.9 pg/L	n/a	
Chloroform	6.92	4.14	12.23	7.32	(lbs/day)
Trichlorosyringol	n/a	n/a	<2.5 ug/L	n/a	
3,4,5-trichlorocatecol	n/a	n/a	<5.0 ug/L	n/a	
3,4,6-trichlorocatecol	n/a	n/a	<5.0 ug/L	n/a	
3,4,5-trichloroguaiacol	n/a	n/a	<2.5 ug/L	n/a	
3,4,6-trichloroguaiacol	n/a	n/a	<2.5 ug/L	n/a	
4,5,6-trichloroguiaiacol	n/a	n/a	<2.5 ug/L	n/a	
2,4,5-trichlorophenol	n/a	n/a	<2.5 ug/L	n/a	
2,4,6-trichlorophenol	n/a	n/a	<2.5 ug/L	n/a	
Tetrachlorocatecol	n/a	n/a	<5.0 ug/L	n/a	
Tetrachloroguiaiacol	n/a	n/a	<5.0 ug/L	n/a	
2,3,4,6-tetrachlorophenol	n/a	n/a	<2.5 ug/L	n/a	
Pentachlorophenol	n/a	n/a	<5.0 ug/L	n/a	

DSN01B (Softwood Bleachery)
Production 779,000.0 lbs/day

Pollutant	**Cluster Guideline Factor**		**Cluster Limitations**		
	Daily Maximum (g/1000 kg product)	*Monthly Average (g/1000 kg product)*	*Daily Maximum*	*Monthly Average*	
TCDD	n/a	n/a	<10 pg/L	n/a	
TCDF	n/a	n/a	31.9 pg/L	n/a	
Chloroform	6.92	4.14	5.39	3.225	(lbs/day)
Trichlorosyringol	n/a	n/a	<2.5 ug/L	n/a	
3,4,5-trichlorocatecol	n/a	n/a	<5.0 ug/L	n/a	
3,4,6-trichlorocatecol	n/a	n/a	<5.0 ug/L	n/a	
3,4,5-trichloroguaiacol	n/a	n/a	<2.5 ug/L	n/a	
3,4,6-trichloroguaiacol	n/a	n/a	<2.5 ug/L	n/a	
4,5,6-trichloroguiaiacol	n/a	n/a	<2.5 ug/L	n/a	
2,4,5-trichlorophenol	n/a	n/a	<2.5 ug/L	n/a	
2,4,6-trichlorophenol	n/a	n/a	<2.5 ug/L	n/a	
Tetrachlorocatecol	n/a	n/a	<5.0 ug/L	n/a	
Tetrachloroguiaiacol	n/a	n/a	<5.0 ug/L	n/a	
2,3,4,6-tetrachlorophenol	n/a	n/a	<2.5 ug/L	n/a	
Pentachlorophenol	n/a	n/a	<5.0 ug/L	n/a	

Current Permit

40 CFR 430 - Pulp and Paper Production Point Source Category

Subpart B - Bleached Papergrade Kraft and Soda Subcateogry
40 CFR 430.22(a) - Best Practicable Technology (BPT)/Best Conventional Technology (BCT)

Bleached kraft facilities where market pulp is produced

Bleached Kraft Pulp		
Pre-2003 Basis	284,000	lbs/day
2003 Requested Basis	522,947	lbs/day
Pre-2003 Sustained Production	369,250	lbs/day
Difference (Requested-Sustained)	153,697	lbs/day
2003 Permit Basis (Pre-2003 + Difference)	437,697	lbs/day

*Pollutant**	**Continuous Discharges**		**Cluster Limitations**	
	Daily Maximum (lbs/1000 lbs product)	*Monthly Average (lbs/1000 lbs product)*	*Daily Maximum (lbs/day)*	*Monthly Average (lbs/day)*
BOD_5	15.45	8.05	6762	3523
TSS	30.4	16.4	13306	7178

*pH within the range of 5.0 to 9.0 S.U.

40 CFR 430.24 Best Available Technology (BAT)

Pollutant	**Continuous Discharges**		**Cluster Limitations**	
	Daily Maximum (lbs/1000 lbs product)	*Monthly Average (lbs/1000 lbs product)*	*Daily Maximum (lbs/day)*	*Monthly Average (lbs/day)*
Pentachlorophenol	0.0019	-	0.83	-
Trichlorophenol	0.012	-	5.25	-

Subpart B - Bleached Papergrade Kraft and Soda Subcateogry
40 CFR 430.22 - Best Practicable Technology (BPT)/Best Conventional Technology (BCT)

Bleached kraft facilies where paperboard, coarse paper, and tissue paper are produced

Bleached Kraft Paperboard		
Pre-2003 Basis	1,752,000	lbs/day
2003 Requested Basis	1,772,588	lbs/day
Pre-2003 Sustained Production	1,852,663	lbs/day
Difference (Requested-Sustained)	(80,075)	lbs/day
2003 Permit Basis*	1,752,000	lbs/day

*The facility showed the ability to meet the parameter limits at productiosn higher than those requested in the application; therfore, the production basis was not increased.

*Pollutant**	**Continuous Discharges**		**Cluster Limitations**	
	Daily Maximum (lbs/1000 lbs product)	*Monthly Average (lbs/1000 lbs product)*	*Daily Maximum (lbs/day)*	*Monthly Average (lbs/day)*
BOD_5	13.65	7.1	23915	12439
TSS	24.0	12.9	42048	22601

*pH within the range of 5.0 to 9.0 S.U.

40 CFR 430.24 Best Available Technology (BAT)

Pollutant	**Continuous Discharges**		**Cluster Limitations**	
	Daily Maximum (lbs/1000 lbs product)	*Monthly Average (lbs/1000 lbs product)*	*Daily Maximum (lbs/day)*	*Monthly Average (lbs/day)*
Pentachlorophenol	0.0016	-	2.80	-
Trichlorophenol	0.01	-	17.52	-

Total Allocations (Subpart B)		
Pollutant	**Daily Maximum**	
	Daily Maximum (lbs/day)	*Monthly Average (lbs/day)*
BOD_5	30677	15963
TSS	55354	29779
Pentachlorophenol**	3.63	-
Trichlorophenol**	22.34	-

*pH within the range of 5.0 to 9.0 S.U.

**The current permit does not include limitations of for chlorophenolics due to an annual certification of non-use

40 CFR 430.24 Best Available Technology (BAT)
Requirements for Each Fiber Line not Using an Exclusively TCF Bleaching Process

A-Bleachery (Hardwood)		
Pre-2003 Basis	1,597,097	lbs/day
2003 Requested Basis	1,598,639	lbs/day
Pre-2003 Sustained Production	1,703,347	lbs/day
Difference (Requested-Sustained)	(104,708)	lbs/day
2003 Permit Basis*	1,597,097	lbs/day

B-Bleachery (Softwood)		
Pre-2003 Basis	471,945	lbs/day
2003 Requested Basis	679,886	lbs/day
Pre-2003 Sustained Production	535,997	lbs/day
Difference (Requested-Sustained)	143,889	lbs/day
2003 Permit Basis*	615,834	lbs/day

Pollutant	**Continuous Discharges**		**Cluster Limitations**	
	Daily Maximum (lbs/1000 lbs product)	*Monthly Average (lbs/1000 lbs product)*	*Daily Maximum (lbs/day)*	*Monthly Average (lbs/day)*
AOX	0.951	0.623	2104	1379
COD	(e)	(e)	(e)	(e)

(e) [Reserved]

*The production numbers are based on the monthly average of the highest production year of the last 5 years

DSN01A (Hardwood Bleachery)

Production 1,542,065 lbs/day

Pollutant	**Cluster Guideline Factor**		**Cluster Limitations**		
	Daily Maximum (g/1000 kg product)	*Monthly Average (g/1000 kg product)*	*Daily Maximum*	*Monthly Average*	
TCDD	n/a	n/a	<10 pg/L	n/a	
TCDF	n/a	n/a	31.9 pg/L	n/a	
Chloroform	6.92	4.14	10.671	6.384	(lbs/day)
Trichlorosyringol	n/a	n/a	<2.5 ug/L	n/a	
3,4,5-trichlorocatecol	n/a	n/a	<5.0 ug/L	n/a	
3,4,6-trichlorocatecol	n/a	n/a	<5.0 ug/L	n/a	
3,4,5-trichloroguaiacol	n/a	n/a	<2.5 ug/L	n/a	
3,4,6-trichloroguaiacol	n/a	n/a	<2.5 ug/L	n/a	
4,5,6-trichloroguiaiacol	n/a	n/a	<2.5 ug/L	n/a	
2,4,5-trichlorophenol	n/a	n/a	<2.5 ug/L	n/a	
2,4,6-trichlorophenol	n/a	n/a	<2.5 ug/L	n/a	
Tetrachlorocatecol	n/a	n/a	<5.0 ug/L	n/a	
Tetrachloroguiaiacol	n/a	n/a	<5.0 ug/L	n/a	
2,3,4,6-tetrachlorophenol	n/a	n/a	<2.5 ug/L	n/a	
Pentachlorophenol	n/a	n/a	<5.0 ug/L	n/a	

DSN01B (Softwood Bleachery)

Production 615,834.0 lbs/day

Pollutant	**Cluster Guideline Factor**		**Cluster Limitations**		
	Daily Maximum (g/1000 kg product)	*Monthly Average (g/1000 kg product)*	*Daily Maximum*	*Monthly Average*	
TCDD	n/a	n/a	<10 pg/L	n/a	
TCDF	n/a	n/a	31.9 pg/L	n/a	
Chloroform	6.92	4.14	4.26	2.5	(lbs/day)
Trichlorosyringol	n/a	n/a	<2.5 ug/L	n/a	
3,4,5-trichlorocatecol	n/a	n/a	<5.0 ug/L	n/a	
3,4,6-trichlorocatecol	n/a	n/a	<5.0 ug/L	n/a	
3,4,5-trichloroguaiacol	n/a	n/a	<2.5 ug/L	n/a	
3,4,6-trichloroguaiacol	n/a	n/a	<2.5 ug/L	n/a	
4,5,6-trichloroguiaiacol	n/a	n/a	<2.5 ug/L	n/a	
2,4,5-trichlorophenol	n/a	n/a	<2.5 ug/L	n/a	
2,4,6-trichlorophenol	n/a	n/a	<2.5 ug/L	n/a	
Tetrachlorocatecol	n/a	n/a	<5.0 ug/L	n/a	
Tetrachloroguiaiacol	n/a	n/a	<5.0 ug/L	n/a	
2,3,4,6-tetrachlorophenol	n/a	n/a	<2.5 ug/L	n/a	
Pentachlorophenol	n/a	n/a	<5.0 ug/L	n/a	

ATTACHMENT B: REASONABLE POTENTIAL ANALYSIS

Facility Name: **Westrock Mill Company LLC - Demopolis**

NPDES No.: **AL0002828**

6/13/2017

$Q_d*C_d + Q_{d2}*C_{d2} + Q_s*C_s = Q_r*C_r$

ID	Pollutant	Carcinogen "yes"	Type	Background from upstream source (C_{d2}) Daily Max	Background from upstream source (C_{d2}) Monthly Ave	Background Instream (C_s) Daily Max	Background Instream (C_s) Monthly Ave	Enter Max Daily Discharge as reported by Applicant (C_d) Max	Enter Avg Daily Discharge as reported by Applicant (C_d) Ave	Partition Coefficient (Stream / Lake)
				ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	
1	Antimony		Metals	0	0	0	0	0	0	-
2	**Arsenic*,****	YES	Metals	0	0	0	0	0	0	0.574
3	Beryllium		Metals	0	0	0	0	0	0	-
4	Cadmium**		Metals	0	0	0	0	0	0	0.236
5	Chromium / Chromium III**		Metals	0	0	0	0	0	0	0.210
6	Chromium / Chromium VI**		Metals	0	0	0	0	0	0	
7	Copper**		Metals	0	0	0	0	0	0	0.388
8	Lead**		Metals	0	0	0	0	5	5	0.206
9	Mercury**		Metals	0	0	0	0	0	0	0.302
10	Nickel**		Metals	0	0	0	0	0	0	0.505
11	Selenium		Metals	0	0	0	0	0	0	-
12	Silver		Metals	0	0	0	0	0	0	-
13	Thallium		Metals	0	0	0	0	0	0	-
14	Zinc**		Metals	0	0	0	0	41	41	0.330
15	Cyanide		Metals	0	0	0	0	0	0	-
16	Total Phenolic Compounds		Metals	0	0	0	0	788	788	-
17	Hardness (As CaCO3)		Metals	0	0	0	0	0	0	-
18	Acrolein		VOC	0	0	0	0	0	0	-
19	**Acrylonitrile***	YES	VOC	0	0	0	0	0	0	-
20	**Aldrin**	YES	VOC	0	0	0	0	0	0	-
21	**Benzene***	YES	VOC	0	0	0	0	0	0	-
22	**Bromoform***	YES	VOC	0	0	0	0	0	0	-
23	**Carbon Tetrachloride***	YES	VOC	0	0	0	0	0	0	-
24	**Chlordane**	YES	VOC	0	0	0	0	0	0	-
25	Clorobenzene		VOC	0	0	0	0	0	0	-
26	**Chlorodibromo-Methane***	YES	VOC	0	0	0	0	0	0	-
27	Chloroethane		VOC	0	0	0	0	0	0	-
28	2-Chloro-Ethylvinyl Ether		VOC	0	0	0	0	0	0	-
29	**ChloroForm***	YES	VOC	0	0	0	0	0	0	-
30	**4,4'-DDD**	YES	VOC	0	0	0	0	0	0	-
31	**4,4'-DDE**	YES	VOC	0	0	0	0	0	0	-
32	**4.4'-DDT**	YES	VOC	0	0	0	0	0	0	-
33	**Dichlorobromo-Methane***	YES	VOC	0	0	0	0	0	0	-
34	1, 1-Dichloroethane		VOC	0	0	0	0	0	0	-
35	**1, 2-Dichloroethane***	YES	VOC	0	0	0	0	0	0	-
36	Trans-1, 2-Dichloro-Ethylene		VOC	0	0	0	0	0	0	-
37	**1, 1-Dichloroethylene***	YES	VOC	0	0	0	0	0	0	-
38	1, 2-Dichloropropane		VOC	0	0	0	0	0	0	-
39	1, 3-Dichloro-Propylene		VOC	0	0	0	0	0	0	-
40	**Dieldrin**	YES	VOC	0	0	0	0	0	0	-
41	Ethylbenzene		VOC	0	0	0	0	0	0	-
42	Methyl Bromide		VOC	0	0	0	0	0	0	-
43	Methyl Chloride		VOC	0	0	0	0	0	0	-
44	**Methylene Chloride***	YES	VOC	0	0	0	0	0	0	-
45	**1, 1, 2, 2-Tetrachloro-Ethane***	YES	VOC	0	0	0	0	0	0	-
46	**Tetrachloro-Ethylene***	YES	VOC	0	0	0	0	0	0	-
47	Toluene		VOC	0	0	0	0	0	0	-
48	**Toxaphene**	YES	VOC	0	0	0	0	0	0	-
49	**Tributyltine (TBT)**	YES	VOC	0	0	0	0	0	0	-
50	1, 1, 1-Trichloroethane		VOC	0	0	0	0	0	0	-
51	**1, 1, 2-Trichloroethane***	YES	VOC	0	0	0	0	0	0	-
52	**Trichlorethylene***	YES	VOC	0	0	0	0	0	0	-
53	**Vinyl Chloride***	YES	VOC	0	0	0	0	0	0	-
54	P-Chloro-M-Cresol		Acids	0	0	0	0	0	0	-
55	2-Chlorophenol		Acids	0	0	0	0	0	0	-
56	2, 4-Dichlorophenol		Acids	0	0	0	0	0	0	-
57	2, 4-Dimethylphenol		Acids	0	0	0	0	0	0	-
58	4, 6-Dinitro-O-Cresol		Acids	0	0	0	0	0	0	-
59	2, 4-Dinitrophenol		Acids	0	0	0	0	0	0	-
60	**4,6-Dinitro-2-methylphenol**	YES	Acids	0	0	0	0	0	0	-
61	**Dioxin (2,3,7,8-TCDD)**	YES	Acids	0	0	0	0	0	0	-
62	2-Nitrophenol		Acids	0	0	0	0	0	0	-
63	4-Nitrophenol		Acids	0	0	0	0	0	0	-
64	**Pentachlorophenol***	YES	Acids	0	0	0	0	0	0	-
65	Phenol		Acids	0	0	0	0	0	0	-
66	**2, 4, 6-Trichlorophenol***	YES	Acids	0	0	0	0	0	0	-
67	Acenaphthene		Bases	0	0	0	0	0	0	-
68	Acenaphthylene		Bases	0	0	0	0	0	0	-
69	Anthracene		Bases	0	0	0	0	0	0	-
70	Benzidine		Bases	0	0	0	0	0	0	-
71	**Benzo(A)Anthracene***	YES	Bases	0	0	0	0	0	0	-
72	**Benzo(A)Pyrene***	YES	Bases	0	0	0	0	0	0	-
73	3, 4 Benzo-Fluoranthene		Bases	0	0	0	0	0	0	-
74	Benzo(GHI)Perylene		Bases	0	0	0	0	0	0	-
75	Benzo(K)Fluoranthene		Bases	0	0	0	0	0	0	-
76	Bis (2-Chloroethoxy) Methane		Bases	0	0	0	0	0	0	-
77	**Bis (2-Chloroethyl)-Ether***	YES	Bases	0	0	0	0	0	0	-
78	Bis (2-Chloroiso-Propyl) Ether		Bases	0	0	0	0	0	0	-
79	**Bis (2-Ethylhexyl) Phthalate***	YES	Bases	0	0	0	0	0	0	-
80	4-Bromophenyl Phenyl Ether		Bases	0	0	0	0	0	0	-
81	Butyl Benzyl Phthalate		Bases	0	0	0	0	0	0	-
82	2-Chloronaphthalene		Bases	0	0	0	0	0	0	-
83	4-Chlorophenyl Phenyl Ether		Bases	0	0	0	0	0	0	-
84	**Chrysene***	YES	Bases	0	0	0	0	0	0	-
85	Di-N-Butyl Phthalate		Bases	0	0	0	0	0	0	-
86	Di-N-Octyl Phthalate		Bases	0	0	0	0	0	0	-
87	**Dibenzo(A,H)Anthracene***	YES	Bases	0	0	0	0	0	0	-
88	1, 2-Dichlorobenzene		Bases	0	0	0	0	0	0	-
89	1, 3-Dichlorobenzene		Bases	0	0	0	0	0	0	-
90	1, 4-Dichlorobenzene		Bases	0	0	0	0	0	0	-
91	**3, 3-Dichlorobenzidine***	YES	Bases	0	0	0	0	0	0	-
92	Diethyl Phthalate		Bases	0	0	0	0	0	0	-
93	Dimethyl Phthalate		Bases	0	0	0	0	0	0	-
94	**2, 4-Dinitrotoluene***	YES	Bases	0	0	0	0	0	0	-
95	2, 6-Dinitrotoluene		Bases	0	0	0	0	0	0	-
96	1,2-Diphenylhydrazine		Bases	0	0	0	0	0	0	-
97	**Endosulfan (alpha)**	YES	Bases	0	0	0	0	0	0	-
98	**Endosulfan (beta)**	YES	Bases	0	0	0	0	0	0	-
99	**Endosulfan sulfate**	YES	Bases	0	0	0	0	0	0	-
100	**Endrin**	YES	Bases	0	0	0	0	0	0	-
101	**Endrin Aldeyhide**	YES	Bases	0	0	0	0	0	0	-
102	Fluoranthene		Bases	0	0	0	0	0	0	-
103	Fluorene		Bases	0	0	0	0	0	0	-
104	Heptochlor	YES	Bases	0	0	0	0	0	0	-
105	Heptachlor Epoxide	YES	Bases	0	0	0	0	0	0	-
106	**Hexachlorobenzene***	YES	Bases	0	0	0	0	0	0	-
107	**Hexachlorobutadiene***	YES	Bases	0	0	0	0	0	0	-
108	**Hexachlorocyclohexan (alpa)**	YES	Bases	0	0	0	0	0	0	-
109	**Hexachlorocyclohexan (beta)**	YES	Bases	0	0	0	0	0	0	-
110	**Hexachlorocyclohexan (gamma)**	YES	Bases	0	0	0	0	0	0	-
111	HexachlorocyclоPentadiene		Bases	0	0	0	0	0	0	-
112	Hexachloroethane		Bases	0	0	0	0	0	0	-
113	**Indeno(1, 2, 3-CK)Pyrene***	YES	Bases	0	0	0	0	0	0	-
114	Isophorone		Bases	0	0	0	0	0	0	-
115	Naphthalene		Bases	0	0	0	0	0	0	-
116	Nitrobenzene		Bases	0	0	0	0	0	0	-
117	**N-Nitrosodi-N-Propylamine***	YES	Bases	0	0	0	0	0	0	-
118	**N-Nitrosodi-N-Methylamine***	YES	Bases	0	0	0	0	0	0	-
119	**N-Nitrosodi-N-Phenylamine***	YES	Bases	0	0	0	0	0	0	-
120	**PCB-1016**	YES	Bases	0	0	0	0	0	0	-
121	**PCB-1221**	YES	Bases	0	0	0	0	0	0	-
122	**PCB-1232**	YES	Bases	0	0	0	0	0	0	-
123	**PCB-1242**	YES	Bases	0	0	0	0	0	0	-
124	**PCB-1248**	YES	Bases	0	0	0	0	0	0	-
125	**PCB-1254**	YES	Bases	0	0	0	0	0	0	-
126	**PCB-1260**	YES	Bases	0	0	0	0	0	0	-
127	Phenanthrene		Bases	0	0	0	0	0	0	-
128	Pyrene		Bases	0	0	0	0	0	0	-
129	1, 2, 4-Trichlorobenzene		Bases	0	0	0	0	0	0	-

18.6	Enter Q_d = wastewater discharge flow from facility (MGD)
28.7784594	Q_d = wastewater discharge flow (cfs) (this value is calculated from the MGD)
0	Enter flow from upstream discharge Qd2 = background stream flow in MGD above point of discharge
0	Qd2 = background stream flow from upstream source (cfs)
811	Enter 7Q10, Q_s = background stream flow in cfs above point of discharge
608	Enter or estimated, 1Q10, Q_s = background stream flow in cfs above point of discharge (1Q10 estimated at 75% of 7Q10)
23811	Enter Mean Annual Flow, Q_s = background stream flow in cfs above point of discharge
2633	Enter 7Q2, Q_s = background stream flow in cfs above point of discharge (For LWF class streams)
Enter to Left	Enter C_s = background in-stream pollutant concentration in µg/l (assuming this is zero "0" unless there is data)
Q_d +Qd2+Q_s	Q_r = resultant in-stream flow, after discharge
Calculated on other	C_r = resultant in-stream pollutant concentration in µg/l in the stream (after complete mining occurs)
50	Enter, Background Hardness above point of discharge (assumed 50 South of Birmingham and 100 North of Birmingham)
7.00 s.u.	Enter, Background pH above point of discharge
YES	Enter, Is discharge to a stream? "YES" Other option would be to a Lake. (This changes the partition coefficients for the metals)

** Using Partition Coefficients

February 12, 2020

Facility Name: Westrock Mill Company LLC - Demopolis

NPDES No.: AL0002828

Freshwater F&W classification.					Max Daily Discharge as reported by Applicant (C_{max})	Freshwater Acute (µg/l) Q_s = 1Q10				Background from upstream source (Cd2) Monthly Ave	Avg Daily Discharge as reported by Applicant (C_{avg})	Freshwater Chronic (µg/l) Q_s = 7Q10				Human Health Consumption Fish only (µg/l) Carcinogen Q_s = Annual Average Non-Carcinogen Q_s = 7Q10			
ID	Pollutant	RP?	Carcinogen yes	Background from upstream source (Cd2) Daily Max		Water Quality Criteria (C_a)	Draft Permit Limit (C_{dmax})	20% of Draft Permit Limit	RP?			Water Quality Criteria (C_c)	Draft Permit Limit (C_{davg})	20% of Draft Permit Limit	RP?	Water Quality Criteria (C_h)	Draft Permit Limit (C_{davg})	20% of Draft Permit Limit	RP?
1	Antimony			0	0	-	-	-	-	0	0	-	-	-	-	3.73E+02	1.09E+04	2.18E+03	No
2	Arsenic		YES	0	0	582.334	13106.534	2621.307	No	0	0	261.324	7625.645	1525.129	No	3.03E-01	2.51E+02	5.02E+01	No
3	Berylium			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
4	Cadmium			0	0	4.347	96.189	19.238	No	0	0	0.644	18.781	3.756	No	-	-	-	-
5	Chromium/ Chromium III			0	0	1537.913	34029.265	6805.853	No	0	0	200.081	5837.644	1167.529	No	-	-	-	-
6	Chromium/ Chromium VI			0	0	16.000	354.031	70.806	No	0	0	11.000	320.889	64.198	No	-	-	-	-
7	Copper			0	0	18.026	398.868	79.774	No	0	0	12.786	372.510	74.502	No	-	-	-	-
8	Lead			0	5	146.291	3236.965	647.393	No	0	5	5.701	166.352	33.270	No	-	-	-	-
9	Mercury			0	0	2.400	53.105	10.621	No	0	0	0.012	0.350	0.070	No	4.24E-02	1.24E+00	2.48E-01	No
10	Nickel			0	0	515.824	11413.600	2282.720	No	0	0	57.282	1671.831	334.366	No	9.93E+02	2.90E+04	5.79E-03	No
11	Selenium			0	0	20.000	442.538	88.508	No	0	0	5.000	145.904	29.181	No	2.43E+03	7.09E+04	1.42E+04	No
12	Silver			0	0	0.976	21.606	4.321	No	0	0	-	-	-	-	-	-	-	-
13	Thallium			0	0	-	-	-	-	0	0	-	-	-	-	2.74E-01	7.88E+00	1.60E+00	No
14	Zinc			0	41	197.369	4367.162	873.432	No	0	41	198.983	5806.491	1161.298	No	1.49E+04	4.35E+05	8.69E+04	No
15	Cyanide			0	0	22.000	486.792	97.358	No	0	0	5.200	151.740	30.348	No	9.33E+03	2.72E+05	5.45E+04	No
16	Total Phenolic Compounds			0	788	-	-	-	-	0	788	-	-	-	-	-	-	-	-
17	Hardness (As CaCO3)			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
18	Acrolein			0	0	-	-	-	-	0	0	-	-	-	-	5.43E+00	1.58E+02	3.17E+01	No
19	Acrylonitrile		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.44E-01	1.19E+02	2.39E+01	No
20	Aldrin		YES	0	0	3.000	66.381	13.276	No	0	0	-	-	-	-	2.94E-08	2.43E-02	4.87E-03	No
21	Benzene		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.55E+01	1.28E+04	2.56E+03	No
22	Bromoform		YES	0	0	-	-	-	-	0	0	-	-	-	-	7.88E+01	6.52E+04	1.30E+04	No
23	Carbon Tetrachloride		YES	0	0	-	-	-	-	0	0	-	-	-	-	9.57E-01	7.93E+02	1.59E+02	No
24	Chlordane		YES	0	0	2.400	53.105	10.621	No	0	0	0.0043	0.125	0.025	No	4.73E-04	3.92E-01	7.83E-02	No
25	Clorobenzene			0	0	-	-	-	-	0	0	-	-	-	-	9.06E+02	2.64E+04	5.29E+03	No
26	Chlorodibromo-Methane		YES	0	0	-	-	-	-	0	0	-	-	-	-	7.41E+00	6.14E+03	1.23E+03	No
27	Chloroethane			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
28	2-Chloro-Ethylvinyl Ether			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
29	ChloroForm		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.02E+02	8.45E+04	1.69E+04	No
30	4,4' - DDD		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.81E-04	1.50E-01	3.01E-02	No
31	4,4' - DDE		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.28E-04	1.06E-01	2.12E-02	No
32	4,4' - DDT		YES	0	0	1.100	24.340	4.868	No	0	0	0.001	0.029	0.006	No	1.28E-04	1.06E-01	2.12E-02	No
33	Dichlorobromo-Methane		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.00E+01	8.31E+03	1.66E+03	No
34	1, 1-Dichloroethane			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
35	1, 2-Dichloroethane		YES	0	0	-	-	-	-	0	0	-	-	-	-	2.14E+01	1.77E+04	3.54E+03	No
36	Trans-1, 2-Dichloro-Ethylene			0	0	-	-	-	-	0	0	-	-	-	-	5.91E+03	1.72E+05	3.45E+04	No
37	1, 1-Dichloroethylene		YES	0	0	-	-	-	-	0	0	-	-	-	-	4.17E+03	3.45E+06	6.90E+05	No
38	1, 2-Dichloropropane			0	0	-	-	-	-	0	0	-	-	-	-	8.49E+00	2.48E+02	4.96E+01	No
39	1, 3-Dichloro-Propylene			0	0	-	-	-	-	0	0	-	-	-	-	1.23E+01	3.58E+02	7.17E+01	No
40	Dieldrin		YES	0	0	0.240	5.310	1.062	No	0	0	0.056	1.634	0.327	No	3.12E-05	2.59E-02	5.17E-03	No
41	Ethylbenzene			0	0	-	-	-	-	0	0	-	-	-	-	1.24E-03	3.63E+04	7.26E+03	No
42	Methyl Bromide			0	0	-	-	-	-	0	0	-	-	-	-	8.71E+02	2.54E+04	5.08E+03	No
43	Methyl Chloride			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
44	Methylene Chloride		YES	0	0	-	-	-	-	0	0	-	-	-	-	3.46E-02	2.86E+05	5.73E+04	No
45	1, 1, 2, 2-Tetrachloro-Ethane		YES	0	0	-	-	-	-	0	0	-	-	-	-	2.33E+00	1.93E+03	3.87E+02	No
46	Tetrachloro-Ethylene		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.92E+00	1.59E+03	3.18E+02	No
47	Toluene			0	0	-	-	-	-	0	0	-	-	-	-	8.72E+03	2.55E+05	5.09E+04	No
48	Toxaphene		YES	0	0	0.730	16.153	3.231	No	0	0	0.0002	0.006	0.001	No	1.62E-04	1.34E-01	2.88E-02	No
49	Tributyltin (TBT)		YES	0	0	0.460	10.178	2.036	No	0	0	0.072	2.101	0.420	No	-	-	-	-
50	1, 1, 1-Trichloroethane			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
51	1, 1, 2-Trichloroethane		YES	0	0	-	-	-	-	0	0	-	-	-	-	9.10E+00	7.54E+03	1.51E+03	No
52	Trichlorethylene		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.75E+01	1.45E+04	2.89E+03	No
53	Vinyl Chloride		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.42E+00	1.18E+03	2.36E+02	No
54	P-Chloro-M-Cresol			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
55	2-Chlorophenol			0	0	-	-	-	-	0	0	-	-	-	-	8.71E+01	2.54E+03	5.08E+02	No
56	2, 4-Dichlorophenol			0	0	-	-	-	-	0	0	-	-	-	-	1.72E+02	5.02E+03	1.00E+03	No
57	2, 4-Dimethylphenol			0	0	-	-	-	-	0	0	-	-	-	-	4.98E+02	1.45E+04	2.90E+03	No
58	4, 6-Dinitro-O-Cresol			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
59	2, 4-Dinitrophenol			0	0	-	-	-	-	0	0	-	-	-	-	3.11E+03	9.08E+04	1.82E+04	No
60	4,6-Dinitro-2-methylphenol		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.65E+02	1.37E+05	2.74E+04	No
61	Dioxin (2,3,7,8-TCDD)		YES	0	0	-	-	-	-	0	0	-	-	-	-	2.67E-08	2.21E-05	4.42E-06	No
62	2-Nitrophenol			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
63	4-Nitrophenol			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
64	Pentachlorophenol		YES	0	0	8.723	193.020	38.604	No	0	0	6.693	195.295	39.059	No	1.77E+00	1.46E+03	2.93E+02	No
65	Phenol			0	0	-	-	-	-	0	0	-	-	-	-	5.00E+05	1.46E+07	2.92E+06	No
66	2, 4, 6-Trichlorophenol		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.41E+00	1.17E+03	2.34E+02	No
67	Acenaphthene			0	0	-	-	-	-	0	0	-	-	-	-	5.79E+02	1.69E+04	3.38E+03	No
68	Acenaphthylene			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
69	Anthracene			0	0	-	-	-	-	0	0	-	-	-	-	2.33E+04	6.81E+05	1.36E+05	No
70	Benzidine			0	0	-	-	-	-	0	0	-	-	-	-	1.16E-04	3.38E-03	6.77E-04	No
71	Benzo(A)Anthracene		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.07E-02	8.83E+00	1.77E+00	No
72	Benzo(A)Pyrene		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.07E-02	8.83E+00	1.77E+00	No
73	Benzo(b)fluoranthene			0	0	-	-	-	-	0	0	-	-	-	-	1.07E-02	3.11E-01	6.22E-02	No
74	Benzo(GHI)Perylene			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
75	Benzo(K)Fluoranthene			0	0	-	-	-	-	0	0	-	-	-	-	1.07E-02	3.11E-01	6.22E-02	No
76	Bis (2-Chloroethoxy) Methane			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
77	Bis (2-Chloroethyl)-Ether		YES	0	0	-	-	-	-	0	0	-	-	-	-	3.07E-01	2.55E+02	5.09E+01	No
78	Bis (2-Chloroiso-Propyl) Ether			0	0	-	-	-	-	0	0	-	-	-	-	3.78E+04	1.10E+06	2.21E+05	No
79	Bis (2-Ethylhexyl) Phthalate		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.28E+00	1.06E+03	2.12E+02	No
80	4-Bromophenyl Phenyl Ether			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
81	Butyl Benzyl Phthalate			0	0	-	-	-	-	0	0	-	-	-	-	1.13E+03	3.29E+04	6.58E+03	No
82	2-Chloronaphthalene			0	0	-	-	-	-	0	0	-	-	-	-	9.24E+02	2.70E+04	5.39E+03	No
83	4-Chlorophenyl Phenyl Ether			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
84	Chrysene		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.07E-02	8.83E+00	1.77E+00	No
85	Di-N-Butyl Phthalate			0	0	-	-	-	-	0	0	-	-	-	-	2.62E+03	7.65E+04	1.53E+04	No
86	Di-N-Octyl Phthalate			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
87	Dibenzo(A,H)Anthracene		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.07E-02	8.83E+00	1.77E+00	No
88	1, 2-Dichlorobenzene			0	0	-	-	-	-	0	0	-	-	-	-	7.55E+02	2.20E+04	4.41E+03	No
89	1, 3-Dichlorobenzene			0	0	-	-	-	-	0	0	-	-	-	-	5.62E+02	1.64E+04	3.28E+03	No
90	1, 4-Dichlorobenzene			0	0	-	-	-	-	0	0	-	-	-	-	1.12E+02	3.28E+03	6.56E+02	No
91	3, 3-Dichlorobenzidine		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.66E-02	1.38E+01	2.75E+00	No
92	Diethyl Phthalate			0	0	-	-	-	-	0	0	-	-	-	-	2.56E-04	7.46E+05	1.49E+05	No
93	Dimethyl Phthalate			0	0	-	-	-	-	0	0	-	-	-	-	6.48E+05	1.89E+07	3.78E+06	No
94	2, 4-Dinitrotoluene		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.98E+00	1.64E+03	3.28E+02	No
95	2, 6-Dinitrotoluene			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
96	1,2-Diphenylhydrazine			0	0	-	-	-	-	0	0	-	-	-	-	1.17E-01	3.42E+00	6.84E-01	No
97	Endosulfan (alpha)		YES	0	0	0.22	4.868	0.974	No	0	0	0.056	1.634	0.327	No	5.19E+01	4.30E+04	8.59E+03	No
98	Endosulfan (beta)		YES	0	0	0.22	4.868	0.974	No	0	0	0.056	1.634	0.327	No	5.19E+01	4.30E+04	8.59E+03	No
99	Endosulfan sulfate		YES	0	0	-	-	-	-	0	0	-	-	-	-	5.19E+01	4.30E+04	8.59E+03	No
100	Endrin		YES	0	0	0.086	1.903	0.381	No	0	0	0.036	1.051	0.210	No	3.53E-02	2.92E+01	5.84E+00	No
101	Endrin Aldeyhde		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.76E-01	1.46E+02	2.92E+01	No
102	Fluoranthene			0	0	-	-	-	-	0	0	-	-	-	-	8.12E+01	2.37E+03	4.74E+02	No
103	Fluorene			0	0	-	-	-	-	0	0	-	-	-	-	3.11E+03	9.08E+04	1.82E+04	No
104	Heptochlor		YES	0	0	0.52	11.506	2.301	No	0	0	0.0038	0.111	0.022	No	4.63E-05	3.84E-02	7.67E-03	No
105	Heptachlor Epoxide		YES	0	0	0.52	11.506	2.301	No	0	0	0.0038	0.111	0.022	No	2.29E-05	1.90E-02	3.79E-03	No
106	Hexachlorobenzene		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.68E-04	1.39E-01	2.78E-02	No
107	Hexachlorobutadiene		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.08E+01	8.91E+03	1.78E+03	No
108	Hexachlorocyclohexan (alpha)		YES	0	0	-	-	-	-	0	0	-	-	-	-	2.85E-03	2.36E+00	4.72E-01	No
109	Hexachlorocyclohexan (beta)		YES	0	0	-	-	-	-	0	0	-	-	-	-	9.97E-03	8.26E+00	1.65E+00	No
110	Hexachlorocyclohexan (gamma)		YES	0	0	0.95	21.021	4.204	No	0	0	-	-	-	-	1.08E+00	8.92E+02	1.78E+02	No
111	HexachlorocycloPentadiene			0	0	-	-	-	-	0	0	-	-	-	-	6.45E+02	1.88E+04	3.77E+03	No
112	Hexachloroethane			0	0	-	-	-	-	0	0	-	-	-	-	1.92E+00	5.60E+01	1.12E+01	No
113	Indeno(1, 2, 3-CK)Pyrene		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.07E-02	8.83E+00	1.77E+00	No
114	Isophorone			0	0	-	-	-	-	0	0	-	-	-	-	5.61E+02	1.64E+04	3.27E+03	No
115	Naphthalene			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
116	Nitrobenzene			0	0	-	-	-	-	0	0	-	-	-	-	4.04E+02	1.18E+04	2.36E+03	No
117	N-Nitrosodi-N-Propylamine		YES	0	0	-	-	-	-	0	0	-	-	-	-	2.95E-01	2.44E+02	4.89E+01	No
118	N-Nitrosodimethylamine		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.76E+00	1.46E+03	2.92E+02	No
119	N-Nitrosodiphenylamine		YES	0	0	-	-	-	-	0	0	-	-	-	-	3.50E+00	2.90E+03	5.80E+02	No
120	PCB-1016		YES	0	0	-	-	-	-	0	0	0.014	0.409	0.082	No	3.74E-05	3.10E-02	6.20E-03	No
121	PCB-1221		YES	0	0	-	-	-	-	0	0	0.014	0.409	0.082	No	3.74E-05	3.10E-02	6.20E-03	No
122	PCB-1232		YES	0	0	-	-	-	-	0	0	0.014	0.409	0.082	No	3.74E-05	3.10E-02	6.20E-03	No
123	PCB-1242		YES	0	0	-	-	-	-	0	0	0.014	0.409	0.082	No	3.74E-05	3.10E-02	6.20E-03	No
124	PCB-1248		YES	0	0	-	-	-	-	0	0	0.014	0.409	0.082	No	3.74E-05	3.10E-02	6.20E-03	No
125	PCB-1254		YES	0	0	-	-	-	-	0	0	0.014	0.409	0.082	No	3.74E-05	3.10E-02	6.20E-03	No
126	PCB-1260		YES	0	0	-	-	-	-	0	0	0.014	0.409	0.082	No	3.74E-05	3.10E-02	6.20E-03	No
127	Phenanthrene			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
128	Pyrene			0	0	-	-	-	-	0	0	-	-	-	-	2.33E+03	6.81E+04	1.36E+04	No
129	1, 2, 4-Trichlorobenzene			0	0	-	-	-	-	0	0	-	-	-	-	4.09E+01	1.19E+03	2.39E+02	No

ATTACHMENT C: STREAM MONITORING MEMORANDUM

LANCE R. LEFLEUR
DIRECTOR

KAY IVEY
GOVERNOR

Alabama Department of Environmental Management
adem.alabama.gov
1400 Coliseum Blvd. 36110-2400 ■ Post Office Box 301463
Montgomery, Alabama 36130-1463
(334) 271-7700 ■ FAX (334) 271-7950

August 19, 2019

MEMORANDUM

To: Alex Chavers, Industrial/Municipal Branch

From: Keosha Powell, Water Quality Branch

Subject: Westrock Demopolis (NPDES Permit AL0002828) – Instream Monitoring Plan

Part IV.E of NPDES Permit No. AL0002828 requires water quality monitoring to be conducted on the Tombigbee River between the dates of May 1 and November 30. This water quality monitoring is to be conducted once per two weeks downstream of the Westrock Demopolis facility discharge point to a point beyond the downstream sag point or to the Coffeeville Dam if the dissolved oxygen levels are still decreasing at the dam. Under conditions when the instream dissolved oxygen is less than 5.9 mg/l, monitoring frequency increases to twice per week. The monitoring frequency is once per day when the dissolved oxygen is less than 5.2 mg/l.

On March 12, 2019, Westrock Demopolis submitted a formal written request to change the period for instream monitoring to June 1 through September 30. Based on a review of the historical instream monitoring data submitted by this facility, the Water Quality Branch recommends that the monitoring period be changed to June 1 through October 31. This change in monitoring should adequately represent the water quality conditions of the Tombigbee River as well as verify that water quality standards are being attained during critical conditions.

KDP:kdp

Birmingham Branch
110 Vulcan Road
Birmingham, AL 35209-4702
(205) 942-6168
(205) 941-1603 (FAX)

Decatur Branch
2715 Sandlin Road, S.W.
Decatur, AL 35603-1333
(256) 353-1713
(256) 340-9359 (FAX)

Mobile Branch
2204 Perimeter Road
Mobile, AL 36615-1131
(251) 450-3400
(251) 479-2593 (FAX)

Mobile-Coastal
4171 Commanders Drive
Mobile, AL 36615-1421
(251) 432-6533
(251) 432-6598 (FAX)

Westrock Mill Company, LLC – Demopolis

February 27, 2020

*Page numbers are in reference to the comments submitted. The page numbers in the revised draft have been altered due to the changes in the draft permit.

- Page 1 of 49
  - Sample types for BOD5 was changed according to the following: Net BOD5 and cumulative DSN001 and DSN005 have a Calculated sample type and the cumulative DSN001 and DSN005 value is Composite.
- Page 3 of 49
  - *Daily Maximum Allocation* was revised to *Daily Allocation* throughout.
  - Additional language was added to ensure a river run would only be required if the DO gauge at the Hwy 114 Bridge measured a DO below 4.0 mg/L.
- Page 11 of 49
  - Reduced the 2,3,7,8-TCDD limitation the exiting permit limitations consistent with the language in the rationale.
  - Fixed type in footnote 4/
- Page 12 of 49
  - Revised DSN005 BOD5 and TSS limitations to REPORT, consistent with the previous permit and the new understanding that the facility's barking operations are "dry" and not "wet barking" as defined in 40 CFR 430.01.
- Page 13 of 49
  - Revised DSN05A to remove the BOD5 and TSS limitations. The wastewater through DSN05A is only subject to 40 CFR 429: Subpart I, which only has pH limitations.
  - Removed narrative discharge limitations from internal outfall DSN05A.
- Page 14 of 49
  - Removed DSN006S from semi-annual stormwater monitoring requirements and moved to its own page with annual requirements. (Page 15 of 48 in revised draft).
  - Footnotes were added to clarify representative sampling requirements.
  - Stormwater flow requirements will be based on Part IV.A for all stormwater outfalls. Flow will be estimated as MGD, which is consistent with all individual stormwater-monitoring requirements.
- Page 15 of 49, Page 18 of 49
  - Flow monitoring for internal outfalls DSN01AQ and DSN01BQ has been moved to outfalls DSN01AS and DSN01BS with a frequency of semi-annual.
  - Narrative discharge criteria was removed from internal outfalls
- Page 16 of 49, Page 17 of 49, Page 19 of 49, Page 20 of 49
  - Narrative discharge criteria was removed from internal outfalls
- Page 38 of 49
  - Part IV.B – No changes were made to this section. This section is standard language for all stormwater measurement under Individual NDPES Permits and is consistent with language in ADEM's general permits and EPA's Industrial Stormwater Monitoring and Sampling Guide. Stormwater flow should be reported as an estimated total volume (MGD) as specified.
- Page 42/43 of 49
  - Removed duplicate section in Part IV.D
- Page 44 of 49
  - Corrected Part IV.E.3.b(2) – Added the omitted sentence
- Page 46 of 49
  - Corrected formatting problems.

(continued on next page)

- Page 47 of 49
  - Corrected Part IV.E.8.d reference to 10.a(6)
- Page 48 of 49
  - Part IV.F – Changed the downstream monitoring point to the "a point beyond the downstream sag or to the Hwy 114 Bridge).
  - Did not add "downstream stabilization" as we do not have a baseline for this statement and would need to elaborate on what would be considered "stabilized".
  - Revised Part IV.F.3.d to below the Demopolis Dam lower pool.

ADEM
Alabama Department of Environmental Management

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

PERMITTEE: WESTROCK MILL COMPANY LLC

FACILITY LOCATION: 28270 U.S. HIGHWAY 80 WEST
DEMOPOLIS, AL 36732

PERMIT NUMBER: AL0002828

RECEIVING WATERS: DSN001, DSN005, DSN006, DSN009, DSN010: TOMBIGBEE RIVER
DSN007, DSN008: UNNAMED TRIBUTARY TO TOMBIGBEE RIVER

In accordance with and subject to the provisions of the Federal Water Pollution Control Act, as amended, 33 U.S.C. §§1251-1388 (the "FWPCA"), the Alabama Water Pollution Control Act, as amended, Code of Alabama 1975, §§ 22-22-1 to 22-22-14 (the "AWPCA"), the Alabama Environmental Management Act, as amended, Code of Alabama 1975, §§22-22A-1 to 22-22A-17, and rules and regulations adopted thereunder, and subject further to the terms and conditions set forth in this permit, the Permittee is hereby authorized to discharge into the above-named receiving waters.

ISSUANCE DATE: REQUESTED CHANGES 1-9-2020.

EFFECTIVE DATE:

JH HURST

EXPIRATION DATE:

Draft

Alabama Department of Environmental Management

PART I DISCHARGE LIMITATIONS, CONDITIONS, AND REQUIREMENTS

DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN0011: Process wastewater associated with pulp and paper manufacturing, sanitary wastewater, and stormwater runoff 3/

Such discharge shall be limited and monitored by the permittee as specified below:

	DISCHARGE LIMITATIONS					MONITORING REQUIREMENTS 1/		
EFFLUENT CHARACTERISTIC	Monthly Average	Daily Maximum	Daily Minimum	Monthly Average	Daily Maximum	Measurement Frequency 2/	Sample Type	Seasonal
BOD, 5-Day (20 Deg. C) 5/	0 lbs/day See Footnote 5	0 lbs/day See Footnote 5	-	-	-	3X Weekly test	~~Calculated~~ Comp	May - November
BOD, 5-Day (20 Deg. C) 6/	REPORT lbs/day	REPORT lbs/day	-	-	-	3X Weekly test	~~Calculated~~ Composite	
BOD, 5-Day (20 Deg. C) 4/	15963 lbs/day	30677 lbs/day	-	-	-	3X Weekly test	Composite	-
pH	-	-	6.0 S.U.	-	9.0 S.U.	3X Weekly test	Grab	-
Solids, Total Suspended	29779 lbs/day	55354 lbs/day	-	-	-	3X Weekly test	Composite	-
Nitrogen, Ammonia Total (As N)	-	-	-	-	REPORT mg/l	Monthly	Composite	April - October
Nitrogen, Kjeldahl Total (As N)	-	-	-	-	REPORT mg/l	Monthly	Composite	April - October
Nitrite Plus Nitrate Total 1 Det. (As N)	-	-	-	-	REPORT mg/l	Monthly	Composite	April - October

THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.

2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

3/ See Part IV.B for Best Management Practices (BMP) Plan Requirements.

4/ See Note 1 on Page 3.

5/ See Note 2 on Page 3.

6/ The permittee shall report the actual BODs discharged at DSN001.

Note 1: For determining compliance with the effluent guideline limitations, the permittee will report the sum of the actual BOD_5 discharged at DSN001 and DSN005.

Note 2: For determining compliance with the allocation table found on Pages 4-7 of this permit, the permittee will use the following equations:

***For the period May 1 through November 30 beginning on the effective date of this permit and lasting through the expiration date of this permit:**

Daily Maximum BOD_5(reported) = ~~Net BOD5 – Daily Maximum Allocation~~ *1.92* — *Net BOD_5 – DAILY ALLOCATION *1.92* *

Monthly Average BOD_5(reported) = Net BOD5 – Monthly Average. Allocation*

*Values less than zero are considered to be in compliance.

Daily Maximum Allocation[1/] – This value is determined for each day from the charts found on Page 4 through Page 7 of this permit. The charts define the allocations for specified river flow and temperature combinations. Average flow on the previous day shall be determined at the Demopolis Dam from a minimum of three (3) readings. The temperature of the Tombigbee River shall be determined at the monitoring point adjacent to the Westrock Mill Company, LLC intake structure for the current day.

If either reading is not available, the reading for the previous day will be used. On those days when the actual temperature or flow does not appear on the chart, the permittee shall use the next higher temperature and next lower flow. ~~On those days when the temperature is greater than 32 °C and/or the flow is less than 900 cfs, the allowable allocation will be 1,093 lbs/day BOD5 and the facility must conduct a river monitoring run to verify that the dissolved oxygen in the receiving stream is meeting water quality standards.~~ ← *RELIEF NEEDED! THIS HAS NOT BEEN IN THE PERMITS.*

DELETE

Monthly Average Allocation – This value is determined by aggregating the daily ~~maximum~~ allocations for each day and dividing the sum by the number of days in the month. ← *SHOULDN'T THIS BE STRUCK? YES*

Net BOD_5 – The actual BOD_5 discharged less an offset for oxygen injected into the river. The permittee may offset 1 pound of BOD_5 discharged by injecting 4.2 pounds of oxygen into the river, but the offset may not reduce net BOD_5 discharged below zero on any day. Oxygen injection systems should be of a design and location approved in advance by the Department and may be installed and operated by the permittee or by a third party with whom the permittee contracts.

THERE IS A DO METER/GAUGE @ THE BRIDGE (G-B INLET). WHY CAN'T THIS BE USED?

FROM 1-1-2010 UNTIL 12-31-2019 THERE WERE 63 DAYS WHEN THE TEMPERATURE WAS 32.5 F OR GREATER. ALL BUT 8 DAYS WERE IN 2010 & 2011.

THIS IS A BIG PROBLEM FOR US. MAKING ON AVERAGE 6 per YEAR ADDITIONAL TRIPS. IN REALITY WE COULD HAVE TO MAKE 40 ADDITIONAL TRIPS IN ONE YEAR.

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN001Y: Process wastewater associated with pulp and paper manufacturing, sanitary wastewater, and stormwater runoff 3/

Such discharge shall be limited and monitored by the permittee as specified below:

	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS 1/			
EFFLUENT CHARACTERISTIC	Monthly Average	Daily Maximum	Daily Minimum	Monthly Average	Daily Maximum	Measurement Frequency 2/	Sample Type	Seasonal
2,3,7,8-Tetrachlorodibenzo-P-Dioxin 4/	-	0.00000121 lbs/day	-	-	REPORT ppq	Annually	Composite	-

THIS IS A GOOD BIT HIGHER THAN WHAT'S IN THE PERMIT NOW. (0.0000000176) ??

THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.

2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

3/ See Part IV.A for Best Management Practices (BMP) Plan Requirements.

4/ The quantity of discharge used to calculated the mass discharged shall be the average of all daily process discharges occurring during the past 12 months of mill operations. Zero process-discharge days shall not be used in the calculation of daily average flow.

1

*

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN0051: Landfill leachate, ash pond overflow, boiler blowdown, demineralizer wastewater, stormwater runoff, and process wastewater from the Saltwell Chip Mill, including wet-deck log storage wastewater from DSN05A1 3/

Such discharge shall be limited and monitored by the permittee as specified below:

	DISCHARGE LIMITATIONS					MONITORING REQUIREMENTS 1/		
EFFLUENT CHARACTERISTIC	Monthly Average	Daily Maximum	Daily Minimum	Monthly Average	Daily Maximum	Measurement Frequency 2/	Sample Type	Seasonal
BOD, 5-Day (20 Deg. C)	~~5189~~ lbs/day REPORT	~~2767~~ lbs/day REPORT	-	-	-	3X Weekly test	Composite.	-
pH	-	-	6.0 S.U.	-	9.0 S.U.	Monthly	Grab	-
Solids, Total Suspended	~~13260~~ lbs/day REPORT	~~7149~~ lbs/day REPORT	-	-	-	3X Weekly test	Composite	-
Oil & Grease	-	-	-	-	15.0 mg/l	Monthly	Grab	-
Flow, In Conduit or Thru Treatment Plant	-	REPORT MGD	-	-	-	3X Weekly test	Instantaneous	-

WE NEED WHAT IS IN THE EXISTING PERMIT.

CHANGES NEEDED to MATCH THE EXISTING PERMIT.
DSN0051 DOES NOT HAVE NO. AVG & DAILY MAX BOD5 LIMITS NOW. SEE NOTE 1 ON PG 3.
DSN0051A DOES.

THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.

2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

3/ See Part IV.A for Best Management Practices (BMP) Plan Requirements.

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN05A1: Contact water and storm water runoff from wet-deck log storage 3/

Such discharge shall be limited and monitored by the permittee as specified below:

	DISCHARGE LIMITATIONS			MONITORING REQUIREMENTS 1/				
EFFLUENT CHARACTERISTIC	Monthly Average	Daily Maximum	Daily Minimum	Monthly Average	Daily Maximum	Measurement Frequency 2/	Sample Type	Seasonal
BOD, 5-Day (20 Deg. C). 2768	~~REPORT~~ lbs/day	~~REPORT~~ lbs/day 5189	-	-	-	Monthly	Grab	-
pH	-	-	6.0 S.U.	-	9.0 S.U.	Monthly	Grab	-
Solids, Total Suspended 7150	~~REPORT~~ lbs/day	~~REPORT~~ lbs/day 13262		-	-	Monthly	Grab	-
Flow, In Conduit or Thru Treatment Plant	-	REPORT MGD	-	-	-	Monthly	Instantaneous	-

THIS LIQUID/WATER IS SAMPLED INTERNAL to MILL OPERATIONS. IT PASSES THE ASH SETTLING BASIN & EAST RAVINE PRIOR to DISCHARGE @ DSN0051. DEBRIS, FOAM SOLIDS ETC. SHOULD BE OKAY INSIDE OUR EFFLUENT SYSTEM. REMOVE TO MATCH EXISTING PERMIT.

THERE SHALL BE NO DISCHARGE OF DEBRIS, THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

DEBRIS IS DEFINED AS WOODY MATERIAL SUCH AS BARK, TWIGS, BRANCHES, HEARTWOOD, OR SAPWOOD THAT ORIGINATES IN THE PROCESS AND WILL NOT PASS THROUGH A 2.54 CM (1.0 INCH) DIAMETER ROUND OPENING.

1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.

2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

3/ Samples collected to comply with the monitoring requirements for BOD5, pH, and Flow specified above shall be collected at the following location: culvert pipe at 32° 27' 10.6", -87° 57' 55.6".

THIS DOUBLES OUR SAMPLING/ANALYSIS REQUIREMENTS! DSN006 PLUS O&G WAS ADDED.

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN006S: Stormwater runoff from the borrow pit area 3/ 4/ ← IS THERE A REASON TO INCREASE SAMPLING FREQUENCY FROM ANNUAL
DSN007S, DSN008S: Stormwater runoff from log truck entrance roads 3/ 4/ ← DSN007S IS THE REPRESENTATIVE OUTFALL NOW. WE WANT TO CONTINUE THIS.
DSN009S, DSN010S: Stormwater runoff from the bark pile and surrounding areas 3/ 4/ ← DSN009 IS THE REPRESENTATIVE SAMPLE POINT NOW WE WANT THIS TO CONTINUE THIS.

Such discharge shall be limited and monitored by the permittee as specified below:

	DISCHARGE LIMITATIONS			MONITORING REQUIREMENTS 1/				
EEFLUENT CHARACTERISTIC	Monthly Average	Daily Maximum	Daily Minimum	Monthly Average	Daily Maximum	Measurement Frequency 2/	Sample Type	Seasonal
pH	-	-	REPORT S.U.	-	REPORT S.U.	Semi-Annually	Grab	-
Solids, Total Suspended	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	-
Oil & Grease	-	-	-	-	15 mg/l	Semi-Annually	Grab	-
Flow, In Conduit or Thru Treatment Plant	-	REPORT MGD	-	-	-	Semi-Annually	Estimate	-

WE HAVE NOT BEEN CHECKING FLOW @ DSN009.
IT DRAINS A VERY SMALL AREA. < 1 ACRE
THE SAMPLE POINT IS A SWALE IN THE WOODS.

CAN PERMIT BE CLARIFIED ON FLOW REQUIREMENT.
WE Rpt. INSTANEOUS FLOW WHEN SAMPLE WAS GRABBED. (NOT TOTAL FLOW DURING THE EVENT.)

THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.

2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

3/ See Part IV.A for Best Management Practices (BMP) Plan Requirements.

4/ See Part IV.B for Stormwater Measurement and Sampling Requirements.

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN01AQ: A-line (Hardwood) Bleach plant internal requirements. 3/ 4/

Such discharge shall be limited and monitored by the permittee as specified below:

	DISCHARGE LIMITATIONS					MONITORING REQUIREMENTS 1/		
EFFLUENT CHARACTERISTIC	Monthly Average	Daily Maximum	Daily Minimum	Monthly Average	Daily Maximum	Measurement Frequency 2/	Sample Type	Seasonal
Flow, In Conduit or Thru Treatment Plant	REPORT MGD	REPORT MGD	-	-	-	Quarterly	Calculated 5/	-

THIS NEEDS to BE SEMI-ANNUAL w/ pgs 16 & 17

SEE NOTE ON PG 13

THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: A-1 sample filtrate from D0 Seal Tank (acid stage); A-2 sample filtrate from EOP Seal Tank (alkaline stage); A-3 sample filtrate from D1 Seal Tank (acid stage). Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of six (6) equal volume grab samples collected over equal time intervals (one collected every 4 hours for 24 hours). All composite samples shall be collected for a total period of discharge not to exceed 24 hours. This process shall be repeated at all sampling points for compliance at this outfall. The six samples collected from each bleach line shall be composited and analyzed. The pounds per day of chloroform shall be determined for each line based on the volume of flow for that line. The total pounds per day for the three lines shall be reported on the DMR.

2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

3/ These limitations apply to the bleach plant wastewater prior to treatment.

4/ See Part IV.G for Required Test Methods and Minimum Levels.

5/ The flow measurement shall be a calculated value based on a material balance. The permittee shall maintain these calculations and assumptions with the monitoring records for each monitoring point.

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN01AS: A-line (Hardwood) Bleach plant internal requirements. 3/

Such discharge shall be limited and monitored by the permittee as specified below:

	DISCHARGE LIMITATIONS					MONITORING REQUIREMENTS 1/		
EFFLUENT CHARACTERISTIC	Monthly Average	Daily Maximum	Daily Minimum	Monthly Average	Daily Maximum	Measurement Frequency 2/	Sample Type	Seasonal
Chloroform	6.38 lbs/day	10.671 lbs/day	-	-	-	Semi-Annually	Composite 6/	-
2,4,6-Trichlorophenol	-	-	-	-	2.4999 ug/l	Semi-Annually	Composite	-
2,3,7,8-Tetrachlorodibenzo-P-Dioxin	-	-	-	-	9.9999 pg/l	Semi-Annually	Composite	-
2,3,7,8 Tetrachlorodibenzofuran (TCDF)	-	-	-	-	31.9 pg/l	Semi-Annually	Composite	-
Pentachlorophenol	-	-	-	-	4.9999 ug/l	Semi-Annually	Composite	-
3,4,6-Trichloroguaiacol	-	-	-	-	2.4999 ug/l	Semi-Annually	Composite	-
3,4,6-Trichlorocatechol	-	-	-	-	4.9999 ug/l	Semi-Annually	Composite	-
2,4,5-Trichlorophenol	-	-	-	-	2.4999 ug/l	Semi-Annually	Composite	-

THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

SEE NOTE PG 13

1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: A-1 sample filtrate from D0 Seal Tank (acid stage); A-2 sample filtrate from EOP Seal Tank (alkaline stage); A-3 sample filtrate from D1 Seal Tank (acid stage). Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of six (6) equal volume grab samples collected over equal time intervals (one collected every 4 hours for 24 hours). All composite samples shall be collected for a total period of discharge not to exceed 24 hours. This process shall be repeated at all sampling points for compliance at this outfall. The six samples collected from each bleach line shall be composited and analyzed. The pounds per day of chloroform shall be determined for each line based on the volume of flow for that line. The total pounds per day for the three lines shall be reported on the DMR.

2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

3/ These limitations apply to the bleach plant wastewater prior to treatment.

4/ See Part IV.G for Required Test Methods and Minimum Levels.

5/ The flow measurement shall be a calculated value based on a material balance. The permittee shall maintain these calculations and assumptions with the monitoring records for each monitoring point.

6/ Six (6) grab samples, 40 mL each, for chloroform shall be collected over a 24-hour period (one collected every 4 hours for 24 hours) at each sampling location noted in footnote 1/ above. Grab samples are to be obtained from each acid and alkaline sewer line. Grab samples collected from alkaline sewer lines may be combined by flow weighted composite into one sample for analysis in the lab. Grab samples collected from acid sewer lines may be composited in the same manner. If separate acid and alkaline sewer lines do not exist, then sample collected shall be obtained at the nearest accessible point from the bleach plant. Samples are to be cooled during and after collection and are to be collected in such manner that the samples do not contain entrained air (bubbles).

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN01AS (continued): A-line (Hardwood) Bleach plant internal requirements. 3/

Such discharge shall be limited and monitored by the permittee as specified below:

	DISCHARGE LIMITATIONS					MONITORING REQUIREMENTS 1/		
EFFLUENT CHARACTERISTIC	Monthly Average	Daily Maximum	Daily Minimum	Monthly Average	Daily Maximum	Measurement Frequency 2/	Sample Type	Seasonal
3,4,5-Trichloroguaiacol	-	-	-	-	2.4999 ug/l	Semi-Annually	Composite	-
3,4,5 Trichlorocatechol	-	-	-	-	4.999 ug/l	Semi-Annually	Composite	-
Tetrachloroguaiacol	-	-	-	-	4.9999 ug/l	Semi-Annually	Composite	-
Tetrachlorocatechol	-	-	-	-	4.9999 ug/l	Semi-Annually	Composite	-
Trichlorosyringol	-	-	-	-	2.4999 ug/l	Semi-Annually	Composite	-
4,5,6-Trichloroguaiacol	-	-	-	-	2.4999 ug/l	Semi-Annually	Composite	-
2,3,4,6-Tetrachlorophenol	-	-	-	-	2.4999 ug/l	Semi-Annually	Composite	-

THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: A-1 sample filtrate from D0 Seal Tank (acid stage); A-2 sample filtrate from EOP Seal Tank (alkaline stage); A-3 sample filtrate from D1 Seal Tank (acid stage). Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of six (6) equal volume grab samples collected over equal time intervals (one collected every 4 hours for 24 hours). All composite samples shall be collected for a total period of discharge not to exceed 24 hours. This process shall be repeated at all sampling points for compliance at this outfall. The six samples collected from each bleach line shall be composited and analyzed. The pounds per day of chloroform shall be determined for each line based on the volume of flow for that line. The total pounds per day for the three lines shall be reported on the DMR.

2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

3/ These limitations apply to the bleach plant wastewater prior to treatment.

4/ See Part IV.G for Required Test Methods and Minimum Levels.

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN01BQ: B-Line (Softwood) Bleach Plant internal requirements 3/

Such discharge shall be limited and monitored by the permittee as specified below:

	DISCHARGE LIMITATIONS					MONITORING REQUIREMENTS 1/		
EFFLUENT CHARACTERISTIC	Monthly Average	Daily Maximum	Daily Minimum	Monthly Average	Daily Maximum	Measurement Frequency 2/	Sample Type	Seasonal
Flow, In Conduit or Thru Treatment Plant	REPORT MGD	REPORT MGD	-	-	-	Quarterly	Calculated	-

THIS NEEDS to BE SEMI-ANNUAL w/ pgs. 19 & 20.

~~THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.~~

1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: A-1 sample filtrate from D0 Seal Tank (acid stage); A-2 sample filtrate from EOP Seal Tank (alkaline stage); A-3 sample filtrate from D1 Seal Tank (acid stage). Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of six (6) equal volume grab samples collected over equal time intervals (one collected every 4 hours for 24 hours). All composite samples shall be collected for a total period of discharge not to exceed 24 hours. This process shall be repeated at all sampling points for compliance at this outfall. The six samples collected from each bleach line shall be composited and analyzed. The pounds per day of chloroform shall be determined for each line based on the volume of flow for that line. The total pounds per day for the three lines shall be reported on the DMR.

2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

3/ These limitations apply to the bleach plant wastewater prior to treatment.

4/ See Part IV.G for Required Test Methods and Minimum Levels.

5/ The flow measurement shall be a calculated value based on a material balance. The permittee shall maintain these calculations and assumptions with the monitoring records for each monitoring point.

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN01BS: B-Line (Softwood) Bleach Plant internal requirements 3/

Such discharge shall be limited and monitored by the permittee as specified below:

	DISCHARGE LIMITATIONS					MONITORING REQUIREMENTS 1/		
EFFLUENT CHARACTERISTIC	Monthly Average	Daily Maximum	Daily Minimum	Monthly Average	Daily Maximum	Measurement Frequency 2/	Sample Type	Seasonal
Chloroform	2.5 lbs/day	4.26 lbs/day	-	-	-	Semi-Annually	Composite 6/	-
2,4,6-Trichlorophenol	-	-	-	-	2.4999 ug/l	Semi-Annually	Composite	-
2,3,7,8-Tetrachlorodibenzo-P-Dioxin	-	-	-	-	9.9999 pg/l	Semi-Annually	Composite	-
2,3,7,8 Tetrachlorodibenzofuran (TCDF)	-	-	-	-	31.9 pg/l	Semi-Annually	Composite	-
Pentachlorophenol	-	-	-	-	4.9999 ug/l	Semi-Annually	Composite	-
3,4,6-Trichloroguaiacol	-	-	-	-	2.4999 ug/l	Semi-Annually	Composite	-
3,4,6-Trichlorocatechol	-	-	-	-	4.9999 ug/l	Semi-Annually	Composite	-
2,4,5-Trichlorophenol	-	-	-	-	2.4999 ug/l	Semi-Annually	Composite	-

THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: A-1 sample filtrate from D0 Seal Tank (acid stage); A-2 sample filtrate from EOP Seal Tank (alkaline stage); A-3 sample filtrate from D1 Seal Tank (acid stage). Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of six (6) equal volume grab samples collected over equal time intervals (one collected every 4 hours for 24 hours). All composite samples shall be collected for a total period of discharge not to exceed 24 hours. This process shall be repeated at all sampling points for compliance at this outfall. The six samples collected from each bleach line shall be composited and analyzed. The pounds per day of chloroform shall be determined for each line based on the volume of flow for that line. The total pounds per day for the three lines shall be reported on the DMR.

2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

3/ These limitations apply to the bleach plant wastewater prior to treatment.

4/ See Part IV.G for Required Test Methods and Minimum Levels.

5/ The flow measurement shall be a calculated value based on a material balance. The permittee shall maintain these calculations and assumptions with the monitoring records for each monitoring point.

6/ Six (6) grab samples, 40 mL each, for chloroform shall be collected over a 24-hour period (one collected every 4 hours for 24 hours) at each sampling location noted in footnote 1/ above. Grab samples are to be obtained from each acid and alkaline sewer line. Grab samples collected from alkaline sewer lines may be combined by flow weighted composite into one sample for analysis in the lab. Grab samples collected from acid sewer lines may be composited in the same manner. If separate acid and alkaline sewer lines do not exist, then sample collected shall be obtained at the nearest accessible point from the bleach plant. Samples are to be cooled during and after collection and are to be collected in such manner that the samples do not contain entrained air (bubbles).

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN01BS (continued): B-Line (Softwood) Bleach Plant internal requirements 3/

Such discharge shall be limited and monitored by the permittee as specified below:

	DISCHARGE LIMITATIONS					MONITORING REQUIREMENTS 1/		
EFFLUENT CHARACTERISTIC	Monthly Average	Daily Maximum	Daily Minimum	Monthly Average	Daily Maximum	Measurement Frequency 2/	Sample Type	Seasonal
3,4,5-Trichloroguaiacol	-	-	-	-	2.4999 ug/l	Semi-Annually	Composite	-
3,4,5 Trichlorocatechol	-	-	-	-	4.9999 ug/l	Semi-Annually	Composite	-
Tetrachloroguaiacol	-	-	-	-	4.9999 ug/l	Semi-Annually	Composite	-
Tetrachlorocatechol	-	-	-	-	4.9999 ug/l	Semi-Annually	Composite	-
Trichlorosyringol	-	-	-	-	2.4999 ug/l	Semi-Annually	Composite	-
4,5,6-Trichloroguaiacol	-	-	-	-	2.4999 ug/l	Semi-Annually	Composite	-
2,3,4,6-Tetrachlorophenol	-	-	-	-	2.4999 ug/l	Semi-Annually	Composite	-

THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: A-1 sample filtrate from D0 Seal Tank (acid stage); A-2 sample filtrate from EOP Seal Tank (alkaline stage); A-3 sample filtrate from D1 Seal Tank (acid stage). Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of six (6) equal volume grab samples collected over equal time intervals (one collected every 4 hours for 24 hours). All composite samples shall be collected for a total period of discharge not to exceed 24 hours. This process shall be repeated at all sampling points for compliance at this outfall. The six samples collected from each bleach line shall be composited and analyzed. The pounds per day of chloroform shall be determined for each line based on the volume of flow for that line. The total pounds per day for the three lines shall be reported on the DMR.

2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

3/ These limitations apply to the bleach plant wastewater prior to treatment.

4/ See Part IV.G for Required Test Methods and Minimum Levels.

l. Provide control sufficient to prevent or control pollution of stormwater by soil particles to the degree required to maintain compliance with the water quality standard for turbidity applicable to the waterbody(s) receiving discharge(s) under this permit;

m. Provide spill prevention, control, and/or management sufficient to prevent or minimize contaminated stormwater runoff. Any containment system used to implement this requirement shall be constructed of materials compatible with the substance(s) contained and shall prevent the contamination of groundwater. The containment system shall also be capable of retaining a volume equal to 110 percent of the capacity of the largest tank for which containment is provided;

n. Provide and maintain curbing, diking or other means of isolating process areas to the extent necessary to allow segregation and collection for treatment of contaminated stormwater from process areas;

o. Be reviewed by plant engineering staff and the plant manager; and

p. Bear the signature of the plant manager.

3. Compliance Schedule

The permittee shall have reviewed (and revised if necessary) and fully implemented the BMP plan as soon as practicable but no later than six months after the effective date of this permit.

4. Department Review

a. When requested by the Director or his designee, the permittee shall make the BMP available for Department review.

b. The Director or his designee may notify the permittee at any time that the BMP is deficient and require correction of the deficiency.

c. The permittee shall correct any BMP deficiency identified by the Director or his designee within 30 days of receipt of notification and shall certify to the Department that the correction has been made and implemented.

5. Administrative Procedures

a. A copy of the BMP shall be maintained at the facility and shall be available for inspection by representatives of the Department.

b. A log of the routine inspection required above shall be maintained at the facility and shall be available for inspection by representatives of the Department. The log shall contain records of all inspections performed for the last three years and each entry shall be signed by the person performing the inspection.

c. The permittee shall provide training for any personnel required to implement the BMP and shall retain documentation of such training at the facility. This documentation shall be available for inspection by representatives of the Department. Training shall be performed prior to the date that implementation of the BMP is required.

d. BMP Plan Modification. The permittee shall amend the BMP plan whenever there is a change in the facility or change in operation of the facility which materially increases the potential for the ancillary activities to result in a discharge of significant amounts of pollutants.

e. BMP Plan Review. The permittee shall complete a review and evaluation of the BMP plan at least once every three years from the date of preparation of the BMP plan. Documentation of the BMP Plan review and evaluation shall be signed and dated by the Plant Manager.

B. STORMWATER FLOW MEASUREMENT AND SAMPLING REQUIREMENTS

1. Stormwater Flow Measurement

a. All stormwater samples shall be collected from the discharge resulting from a storm event that is greater than 0.1 inches.

b. "IF REQUIRED by Part I.A. of this permit" DELETED ?? ← RE-INSERT
The total volume of stormwater discharged for the event must be monitored, including the date and duration (in hours) and rainfall (in inches) for storm event(s) sampled. The duration between the storm

IF LEFT OUT, THEN WE MUST BEGIN MONITORING the DURATION of

THIS NEEDS to BE RE-INSERTED IN THE PERMIT. WE ARE USING the MANNING EQUATION to CALC. "INSTANTANEOUS FLOW"

CAN WE GET SOME RELIEF HERE? SEE APPLICATION.

event sampled and the end of the previous measurable (greater than 0.1 inch rainfall) storm event must be a minimum of 72 hours. This information must be recorded as part of the sampling procedure and records retained according to Part I.B. of this permit.

"calculated using the manning equation" DELETED ??

c. The volume may be measured using flow measuring devices, or estimated based on a modification of the Rational Method using total depth of rainfall, the size of the drainage area serving a stormwater outfall, and an estimate of the runoff coefficient of the drainage area. This information must be recorded as part of the sampling procedure and records retained according to Part I.B. of this permit.

2. Stormwater Sampling

a. A grab sample, if required by this permit, shall be taken during the first thirty minutes of the discharge (or as soon thereafter as practicable); and a flow-weighted composite sample, if required by this permit, shall be taken for the entire event or for the first three hours of the event.

b. All test procedures will be in accordance with part I.B. of this permit.

C. COOLING WATER INTAKE STRUCTURE (CWIS) REQUIREMENTS

WAS G. Δ, But okay

1. The cooling water intake structure used by the permittee has been evaluated using available information. At this time, the Department has determined, using BPJ, that the cooling water intake structure represents the best technology available (BTA) to minimize adverse environmental impact in accordance with Section 316(b) of the Federal Clean Water Act (33 U.S.C. section 1326).

2. The permittee shall submit the following information at least 180 days prior to expiration of the permit:

a. design intake flow of the CWIS

b. percentage of intake flow, based on highest monthly average in last 5 years, used for cooling purposes;

c. an estimate of the intake flow reduction at the facility based upon the use of a 100 percent (or some lesser percentage) closed-cycle re-circulating cooling water system compared to a conventional once-through cooling water system

d. through screen design intake flow velocity

e. any impingement and entrainment data that may have been collected based on the operation of the facility's CWIS, collected since the effective date of this NPDES permit

f. a detailed description of any changes in the operations of the CWIS, or changes in the type of technologies used at the CWIS such as screens or other technologies affecting the rates of impingement and/or entrainment of fish and shellfish

3. The permittee is required to operate and maintain the CWIS in a manner that minimizes impingement and entrainment levels. Documentation detailing the steps that have and are being taken to minimize the impingement and entrainment levels shall be maintained on site and made available upon request.

Δ a-e DELETED okay.

4. Nothing in this Permit authorizes take for the purposes of a facility compliance with the Endangered Species Act. Under the Endangered Species Act, take means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct, of endangered or threatened species.

NEW ← OKAY

D. EFFLUENT TOXICITY LIMITATIONS AND BIOMONITORING REQUIREMENTS

1. The permittee shall perform short-term chronic toxicity tests on the wastewater discharges required to be tested for chronic toxicity by Part I of this permit.

a. Test Requirements (Screening Test)

(1) The samples shall be diluted using appropriate control water, to the Instream Waste Concentration (IWC) which is 4% effluent. The IWC is the actual concentration of effluent, after mixing, in the receiving stream during a 7-day, 10-year flow period.

(8) Number of organisms per test chamber

(9) Number of replicate test chambers per treatment

(10) Test temperature, pH, and dissolved oxygen as recommended by the method (to include ranges)

(11) Specify if aeration was needed

(12) Feeding frequency, amount, and type of food

(13) Specify if (and how) pH control measures were implemented

(14) Light intensity (mean)

e. Test Organisms

(1) Scientific name

(2) Life stage and age

(3) Source

(4) Disease(s) treatment (if applicable)

f. Quality Assurance

(1) Reference toxicant utilized and source

(2) Date and time of most recent chronic reference toxicant test(s), raw data and current control chart(s). The most recent chronic reference toxicant test shall be conducted within 30 days of the routine.

(3) Dilution water utilized in reference toxicant test

(4) Results of reference toxicant test(s) (NOEC, IC25, PASS/FAIL, etc.), report concentration response relationship and evaluate test sensitivity

(5) Physical and chemical methods utilized

g. Results

(1) Provide raw toxicity data in tabular form, including daily records of affected organisms in each concentration (including controls) and replicate

(2) Provide table of endpoints: NOECs, IC25s, PASS/FAIL, etc. (as required in the applicable NPDES permit)

(3) Indicate statistical methods used to calculate endpoints

(4) Provide all physical and chemical data required by method

(5) Results of test(s) (NOEC, IC25, PASS/FAIL, etc.), report concentration-response relationship (definitive test only), report percent minimum significant difference (PMSD) calculated for sub-lethal endpoints determined by hypothesis testing.

h. Conclusions and Recommendations

(1) Relationship between test endpoints and permit limits

(2) Actions to be taken

DELETE

g. Conclusions and Recommendations

(1) Relationship between test endpoints and permit limits

DELETE

(2) Actions to be taken

1/ Adapted from "Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms", Fourth Edition, October 2002 (EPA 821-R-02-013), Section 10, Report Preparation

E. **BEST MANAGEMENT PRACTICES (BMPs) FOR SPENT PULPING LIQUOR, SOAP, AND TURPENTINE MANAGEMENT, SPILL PREVENTION, AND CONTROL**

WAS "A." IN PREVIOUS PERMIT.

1. Applicability

This section applies to direct and indirect discharging pulp, paper, and paperboard mills with pulp production in Subparts B (Bleached Papergrade Kraft and Soda) and E (Papergrade Sulfite) of the Pulp and Paper Guidelines (40 CFR Part 430).

2. Specialized Definitions

a. Action Level: A daily pollutant loading that when exceeded triggers investigative or corrective action. The mill shall determine action levels by a statistical analysis of six months of daily measurements collected at the mill. For example, the lower action level may be the 75th percentile of the running seven-day averages (that value exceeded by 25 percent of the running seven-day averages) and the upper action level may be the 90th percentile of the running seven-day averages (that value exceeded by 10 percent of the running seven-day averages).

b. Equipment Items in Spent Pulping, Liquor, Soap, and Turpentine Service: Any process vessel, storage tank, pumping system, evaporator, heat exchanger, recovery furnace or boiler, pipeline, valve, fitting, or other device that contains, processes, transports, or comes into contact with spent pulping liquor, soap, or turpentine. Sometimes referred to as "equipment items".

c. Immediate Process Area: The location at the mill where pulping, screening, knotting, pulp washing, pulping liquor concentration, pulping liquor processing, and chemical recovery facilities are located, generally the battery limits of the aforementioned processes. "Immediate process area" includes spent pulping liquor storage and spill control tanks located at the mill, whether or not they are located in the immediate process area.

d. Intentional Diversion: The planned removal of spent pulping liquor, soap, or turpentine from equipment items in spent pulping liquor, soap, or turpentine service by the mill for any purpose including, but not limited to, maintenance, grade changes, or process shutdowns.

e. Mill: The owner or operator of a direct or indirect discharging pulp, paper, or paperboard manufacturing facility subject to this section.

f. Senior Technical Manager: The person designated by the mill manager to review the BMP Plan. The senior technical manager shall be the chief engineer at the mill, the manager of pulping and chemical recovery operations, or other such responsible person designated by the mill manager who has knowledge of and responsibility for pulping and chemical recovery operations.

g. Soap: The product of reaction between the alkali in Kraft pulping liquor and fatty acid portions of the wood, which precipitate out when water is evaporated from the spent pulping liquor.

h. Spent Pulping Liquor: For Kraft and soda mills "spent pulping liquor" means black liquor that is used, generated, stored, or processed at any point in the pulping and chemical recovery processes. For sulfite mills "spent pulping liquor" means any intermediate, final, or used chemical solution that is used, generated, stored, or processed at any point in the sulfite pulping and chemical recovery processes (e.g., ammonium-, calcium-, magnesium-, or sodium- based sulfite liquors).

i. Turpentine: A mixture of terpenes, principally pinene, obtained by the steam distillation of pine gum recovered from the condensation of digester relief gases from the cooking of softwoods by the Kraft pulping process. Sometimes referred to as sulfite turpentine.

3. Requirement to Implement Best Management Practices

a. The mill must implement the Best Management Practices (BMPs) specified in paragraphs (1) through (10) of this section. The primary objective of the BMPs is to prevent leaks and spills of spent pulping

liquors, soap, and turpentine. The secondary objective is to contain, collect, and recover at the immediate process area, or otherwise control, those leaks, spills, and intentional diversions of spent pulping liquor, soap, and turpentine that do occur. BMPs must be developed according to best engineering practices and must be implemented in a manner that takes into account the specific circumstances at the mill.

b. The BMPs are as follows:

(1) The mill must return spilled or diverted spent pulping liquors, soap, and turpentine to the process to the maximum extent practicable as determined by the mill, recover such materials outside the process, or discharge spilled or diverted material at a rate that does not disrupt the receiving wastewater treatment system.

OMITTED ?!

The mill must establish a program To identify and repair equipment item.

NOT (2) This program must include: The mill must establish a program to identify and repair leaking equipment items.

All of this was (1) in exist permit.

not sure if it really matters that it's a here.

(a) Regular visual inspections (e.g., once per day) of process areas with equipment items in spent pulping liquor, soap, and turpentine service;

(b) Immediate repairs of leaking equipment items, when possible. Leaking equipment items that cannot be repaired during normal operations must be identified, temporary means for mitigating the leaks must be provided, and the leaking equipment items repaired during the next maintenance outage;

(c) Identification of conditions under which production will be curtailed or halted to repair leaking equipment items or to prevent pulping liquor, soap, and turpentine leaks and spills; and

(d) A means for tracking repairs over time to identify those equipment items where upgrade or replacement may be warranted based on frequency and severity of leaks, spills, or failures.

(3) The mill must operate continuous, automatic monitoring systems that the mill determines are necessary to detect and control leaks, spills, and intentional diversions of spent pulping liquor, soap, and turpentine. These monitoring systems should be integrated with the mill process control system and may include, e.g., high level monitors and alarms on storage tanks; process area conductivity (or pH) monitors and alarms; and process area sewer, process wastewater, and wastewater treatment plant conductivity (or pH) monitors and alarms.

(4) The mill must establish a program of initial and refresher training of operators, maintenance personnel, and other technical and supervisory personnel who have the responsibility for operating, maintaining, or supervising the operation and maintenance of equipment items in spent pulping liquor, soap, and turpentine service. The refresher training must be conducted at least annually and the training program must be documented.

(5) The Mill must prepare a brief report that evaluates each spill of spent pulping liquor, soap, or turpentine that is not contained at the immediate process areas and any intentional diversion of spent pulping liquor, soap, and turpentine that is not contained at the immediate process area. The report must describe the equipment items involved, the circumstances leading to the incident, the effectiveness of the corrective actions taken to contain and recover the spill or intentional diversion, and plans to develop changes to equipment and operating and maintenance practices as necessary to prevent recurrence. Discussion of the reports must be included as part of the annual refresher training.

(6) The mill must establish a program to review any planned modifications to the pulping and chemical recovery facilities and any construction activities in the pulping and chemical recovery areas before these activities commence. The purpose of such review is to prevent leaks and spills of spent pulping liquor, soap, and turpentine during the planned modifications, and to ensure that construction and supervisory personnel are aware of possible liquor diversions and of the requirement to prevent leaks and spills of spent pulping liquors, soap, and turpentine during construction.

(7) The mill must install and maintain secondary containment (i.e., containment constructed of materials impervious to pulping liquors) for spent pulping liquor bulk storage tanks

a. The mill must amend its BMP Plan whenever there is a change in mill design, construction, operation, or maintenance that materially affects the potential for leaks or spills of spent pulping liquor, turpentine, or soap from the immediate process areas.

b. The mill must complete a review and evaluation of the BMP Plan five years after the first BMP Plan is prepared and, except as provided in paragraph 5.a. of this section, once every five years thereafter. As a result of this review and evaluation, the mill must amend the BMP Plan within three months of the review if the mill determines that any new or modified management practices and engineered controls are necessary to reduce significantly the likelihood of spent pulping liquor, soap, and turpentine leaks, spills, or intentional diversions from the immediate process areas, including a schedule for implementation of such practices and controls.

6. Review and Certification of BMP Plan

The BMP Plan, and any amendments thereto, must be reviewed by the senior technical manager at the mill and approved and signed by the mill manager. Any person signing the BMP Plan or its amendments must certify to the Department under penalty of law that the BMP Plan (or its amendments) has been prepared in accordance with good engineering practices and in accordance with this permit and 40 CFR Part 430. The mill is not required to obtain approval from the Department of the BMP Plan or any amendments thereto.

7. Record Keeping Requirements

a. The mill must maintain on its premises a complete copy of the current BMP Plan and the records specified in paragraph b. of this section and must make such BMP Plan and records available to the Department for review upon request.

b. The mill must maintain the following records for three years from the date they are created:

(1) Records tracking the repairs performed in accordance with the repair program described in paragraph 3.b.(2) of the previous sections;

(2)

(3) Records of initial and refresher training conducted in accordance with paragraph 3.b.(4) of the previous sections;

(4)

DELETE & SPACE

(5) Reports prepared in accordance with paragraph 3.b.(5) of the previous sections; and

(6)

(7) Records of monitoring required by paragraph 3.b.(10) of the previous sections and paragraph 9. of the following sections.

8. Establishment of Wastewater Treatment System Influent Action Levels

a. The mill must conduct a monitoring program, described in paragraph b. of this section, for the purpose of defining wastewater treatment system influent characteristics (or action levels), described in paragraph c. of this section, that will trigger requirements to initiate investigations on BMP effectiveness and to take corrective action.

b. The mill must employ the following procedures in order to develop the action levels required by paragraph 8. of this section;

(1) Monitoring parameters: The mill must collect 24-hour composite samples and analyze the samples for a measure of organic content (e.g., Chemical Oxygen Demand (COD) or Total Organic Carbon (TOC). Alternatively, the mill may use a measure related to spent pulping liquor losses measured continuously and averaged over 24 hours (e.g., specific conductivity or color).

(2) Monitoring locations: For direct discharges, monitoring must be conducted at the point influent enters the wastewater treatment system. For indirect dischargers monitoring must be conducted at the point of discharge to the POTW. For the purposes of this requirement, the mill may select alternate monitoring point(s) in order to isolate possible sources of spent pulping liquor, soap, or turpentine from other possible sources of organic wastewaters that are tributary to the wastewater treatment facilities (e.g., bleach plants, paper machines and secondary fiber operations).

c. By the date described in paragraph 10.a.(3) of the following sections, each existing discharger must complete an initial six-month monitoring program using the procedures specified in paragraph 8.b. of this section and must establish initial action levels based on the results of this program. A wastewater

treatment influent action level is a statistically determined pollutant loading determined by a statistical analysis of six months of daily measurements. The action levels must consist of a lower action level, which if exceeded will trigger the investigation requirements described in paragraph 9. of the following section, and an upper action level, which if exceeded will trigger the corrective action requirements described in paragraph 9. of the following section.

d. By the date prescribed in paragraph 10.a.(4) of the following sections, each existing discharger must complete a second six-month monitoring program using the procedures specified in paragraph 8.b. of this section and must establish revised action levels based on the results of that program. The initial action levels shall remain in effect until replaced by revised action levels.

e. By the date prescribed in paragraph 10.b. of the following sections, each new source must complete a six-month monitoring program using the procedures specified in paragraph 8.b. of this section and must develop a lower action level and an upper action level based on the results of that program.

f. Action levels developed under this paragraph must be revised using six months of monitoring data after any change in mill design, construction, operation, or maintenance that materially affects the potential for leaks or spills of spent pulping liquor, soap, or turpentine from the immediate process areas.

9. Monitoring, Corrective Action, and Reporting Requirements

a. The mill must conduct daily monitoring of the influent to the wastewater treatment system in accordance with the procedures described in paragraph 8.b. of the previous section for the purpose of detecting leaks and spills, tracking the effectiveness of the BMPs, and detecting trends in spent pulping liquor losses.

b. Whenever monitoring results exceed the lower action level for the period of time specified in the BMP Plan, the mill must conduct an investigation to determine the cause of such exceedance. Whenever monitoring results exceed the upper action level for the period of time specified in the BMP Plan, the mill must complete corrective action to bring the wastewater treatment system influent mass loading below the lower action level as soon as practicable.

c. Although exceedances of the action levels will not constitute violations of the permit, failure to take the actions required by paragraph 9.b. of this section as soon as practicable will be a permit violation.

d. The mill must report to the Department the results of the daily monitoring conducted pursuant to paragraph 9.a. of this section. Such reports must include a summary of the monitoring results, the number and dates of exceedances of the applicable action levels, and brief descriptions of any corrective actions taken to respond to such exceedances. **Submission of the BMP exceedances shall be quarterly by the 28th day of April, July, and October. A summary of the daily monitoring results shall be submitted annually by the 28th day of January.**

10. Compliance Deadlines

a. Existing direct and indirect dischargers: Except as provided in paragraph 10.b. of this section for new sources, indirect discharging mills must meet the compliance deadlines set forth below. Except as provided in paragraph 10.b. of this section for new sources, direct discharging mills must meet the deadlines set forth below. **If a deadline set forth below has passed at the time the permit is issued, the mill must achieve compliance with the BMP requirement(s) upon the permit effective date.**

(1) **Prepare BMP Plans and certify to the Department** that the BMP Plan has been prepared in accordance with the permit and 40 CFR Part 430 not later than **April 15, 1999;**

(2) Implement **all BMPs** specified in paragraph 3. of the previous sections **that do not require the construction of containment or diversion structures or the installation of monitoring and alarm systems** not later than **April 15,** 1999.

(3) Establish initial action levels required by paragraph 8.c. of the previous sections not later than April 15, 1999.

(4) Commence operation of any new or upgraded continuous, automatic monitoring systems that the mill determines to be necessary under paragraph 3.(3) of the previous sections (other than those associated with construction of containment structures) not later than April 17, 2000.

(5) Complete construction and commence operation of any spent pulping liquor, collection, containment, diversion, or other facilities, including any associated continuous monitoring systems, necessary to fully implement BMPs specified in paragraph 3. of the previous sections not later than April 16, 2001.

(6) Establish revised action levels required by paragraph 3. of the previous sections, by not later than January 15, 2002.

b. New Sources: Upon commencing discharge, new sources subject to this section must implement all of the BMPs specified in paragraph 3. of the previous sections, prepare the BMP Plan required by paragraph 4. of the previous sections, and certify to the Department that the BMP Plan has been prepared in accordance with this permit and 40 CFR part 430 as required by paragraph 6. of the previous sections, except that the action levels required by paragraph 8.e. of the previous sections must be established not later than 12 months after commencement of discharge, based on six months of monitoring data obtained prior to that date in accordance with the procedures specified in paragraph 8.b. of the previous sections.

F. RECEIVING STREAM WATER QUALITY MONITORING REQUIREMENTS

1. The discharge authorized by this permit shall not cause a violation of the applicable dissolved oxygen standard downstream of the discharge. The permittee shall take steps necessary to ensure that its effluent does not result in dissolved oxygen values at the five-foot depth being depressed below the water quality standard as measure by the permittee, ADEM, EPA, or its successor. RELEIF - THANK YOU!

downstream STABILIZATI[ON] or

2. Stream monitoring shall be performed between June 1 and October 31, inclusive, downstream from the Westrock Mill Company, LLC discharge point to a point beyond the downstream sag or to the ~~Coffeeville Dam ?? if the dissolved oxygen levels are still decreasing at the dam.~~ Parameters to be monitoring shall be dissolved oxygen at the five-foot depth, biochemical oxygen demand (5-day), water temperature, and pH. This monitoring requirement may be satisfied with monitoring data gathered by Georgia-Pacific Consumer Operations, LLC and submitted by the permittee.

DELETE →

Sample point before the Hwy 114 bridge.

comment: THERE ARE DO MONITORS at HWY 114 AND HWY 10. THE COFFEVILLE DAM IS A "LEFTOVER" from G-P & US MAKING RIVER TRIPS TOGETHER.

3. Frequency

a. Monitoring is required once per two weeks under normal conditions.

b. Monitoring is required twice per week when the minimum dissolved oxygen value found is less than 5.9 mg/l.

c. Monitoring is required once per day when the minimum dissolved oxygen value found is less than 5.2 mg/l.

d. Monitoring is not required during unsafe river conditions (e.g. river flow exceeds 16,000 cfs and/or when the river elevation stage exceeds 35.5 feet mean sea level (MSL)) below the Demopolis Dam lower pool

4. Locations

The number of monitoring points and their locations are to be approved by the Alabama Department of Environmental Management.

5. Sample Collection and Analysis

Sample collection and analysis shall be performed in accordance with EPA approved sample collection protocol and analysis methods. The times samples are collected should be reported and when practicable, all measurement should be made prior to 12:00 pm.

6. Reporting

River monitoring data shall be submitted electronically to an email address provided by the Department. The permittee is required to verify submittal of the river monitoring data by submitting a value of "0" on the discharge monitoring report for DSN0011 under the parameter "Certification – River Monitoring" for those months in which monitoring is required.

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT (ADEM)
NPDES INDIVIDUAL PERMIT APPLICATION
SUPPLEMENTARY INFORMATION FOR INDUSTRIAL FACILITIES

Instructions: This form should be used to submit the required supplementary information for an application for an NPDES individual permit for industrial facilities. The completed application should be submitted to ADEM in duplicate. If insufficient space is available to address any item, please continue on an attached sheet of paper. Please mark "N/A" in the appropriate box when an item is not applicable to the applicant. **Please type or print legibly in blue or black ink.** Mail the completed application to:

ADEM-Water Division
Industrial Section
P O Box 301463
Montgomery, AL 36130-1463

RECEIVED
NOV 30 2018
IND. MUN BRANCH

PURPOSE OF THIS APPLICATION

- ☐ Initial Permit Application for New Facility*
- ☐ Initial Permit Application for Existing Facility*
- ☐ Modification of Existing Permit
- ■ Reissuance of Existing Permit
- ☐ Revocation & Reissuance of Existing Permit

* *An application for participation in the ADEM's Electronic Environmental (E2) Reporting must be submitted to allow permittee to electronically submit reports as required.*

SECTION A – GENERAL INFORMATION

1. Facility Name: WestRock Mill Company LLC - Demopolis Mill

   a. Operator Name: WestRock Mill Company LLC

   b. Is the operator identified in A.1.a, the owner of the facility? ■ Yes ☐ No
   If no, provide name and address of the operator and submit information indicating the operator's scope of responsibility for the facility.

2. NPDES Permit Number: AL 0 0 0 2 8 2 8 (not applicable if initial permit application)

3. SID Permit Number (if applicable): IU ___ ___ - ___ ___ - ___ ___ ___ ___ ___

4. NPDES General Permit Number (if applicable): ALG 0 6 0 5 2 1

5. Facility Physical Location: (**Attach a map with location marked; street, route no. or other specific identifier**)
   Street: 28270 U. S. Highway 80 West
   City: Demopolis County: Marengo State: Alabama Zip: 36732
   Facility Location (Front Gate): Latitude: 32.45154 degrees Longitude: -87.97667 degrees

6. Facility Mailing Address: Same as listed in Item 5.
   City: _____ County: _____ State: _____ Zip: _____

7. Responsible Official (as described on the last page of this application):
   Name and Title: Don Holtzclaw, General Manager
   Address: 28270 U. S. Highway 80 West
   City: Demopolis State: Alabama Zip: 36732
   Phone Number: (334) 289-1242 Email Address: Don.Holtzclaw@westrock.com

8. Designated Facility Contact:
   Name and Title: Harris Hurst, Director of Environmental Compliance
   Phone Number: (334) 289-6228 Email Address: Harris.Hurst@westrock.com

9. Designated Discharge Monitoring Report (DMR) Contact:

Name and Title: Wayne Baker, Senior Pulp, Utilities, and Environmental Engineer

Phone Number: (334) 289-6209 Email Address: Wayne.Baker@westrock.com

10. Type of Business Entity:

☒ Corporation ☐ General Partnership ☐ Limited Partnership ☐ Limited Liability Company ☐ Sole Proprietorship

☐ Other (Please Specify)

11. Complete this section if the Applicant's business entity is a Corporation

a) Location of Incorporation:

Address: 504 Thrasher Street

City: Norcross County: Gwinnett State: Georgia Zip: 30071

b) Parent Corporation of Applicant:

Name: WestRock Company

Address: 504 Thrasher Street

City: Norcross State: Georgia Zip: 30071

c) Subsidiary Corporation(s) of Applicant:

Name:

Address:

City: State: Zip:

d) Corporate Officers:

Name: Steve Voorhees, Chief Executive Officer

Address: 504 Thrasher Street

City: Norcross State: Georgia Zip: 30071

Name: Tom Stiger, Executive Vice President, Containerboard Mills

Address: 504 Thrasher Street

City: Norcross State: Georgia Zip: 30071

e) Agent designated by the corporation for purposes of service:

Name: Corporation Service Company Inc.

Address: 641 South Lawrence Street

City: Montgomery State: Alabama Zip: 36104

12. If the Applicant's business entity is a Partnership, please list the general partners.

Name: Name:

Address: Address:

City: State: Zip: City: State: Zip:

13. If the Applicant's business entity is a Proprietorship, please enter the proprietor's information.

Name: _____

Address: _____

City: _____ State: _____ Zip: _____

14. Permit numbers for Applicant's previously issued NPDES Permits and identification of any other State of Alabama Environmental Permits presently held by the Applicant, its parent corporation, or subsidiary corporations within the State of Alabama:

Permit Name	Permit Number	Held By
See attached list of environmental permits.		

15. Identify all Administrative Complaints, Notices of Violation, Directives, Administrative Orders, or Litigation concerning water pollution, if any, against the Applicant, its parent corporation or subsidiary corporations within the State of Alabama within the past five years (attach additional sheets if necessary):

Facility Name	Permit Number	Type of Action	Date of Action
None			

SECTION B – BUSINESS ACTIVITY

1. Indicate applicable Standard Industrial Classification (SIC) Codes for all processes. If more than one applies, list in order of importance:

a. 2631

b. 2611

c. _____

d. _____

e. _____

f. _____

Attachment to EPA Form 1 Item X and ADEM Form 187 Item A.14
Environmental Permits
WestRock Mill Company, LLC – Demopolis, Alabama

Type of Permit	Permit Number	Permit Held By
NPDES Individual Permit – Demopolis Mill	AL0002828	WestRock Mill Company, LLC
NPDES General Permit – Demopolis Mill Bark Pile	ALG060521	WestRock Mill Company, LLC
NPDES General Permit – Rooster Bridge Chip Mill	ALG060170	WestRock Mill Company, LLC
Industrial Waste Landfill Permit – Lime Mud Landfill	46-02	WestRock Mill Company, LLC
Industrial Waste Landfill Permit – Solid Waste Landfill	46-03	WestRock Mill Company, LLC
Major Source Operating Permit – Demopolis Mill	105-0001	WestRock Mill Company, LLC
ADECA Certificate of Use – Demopolis Mill	OWR-0138	WestRock Mill Company, LLC
ADECA Certificate of Use – Rooster Bridge Chip Mill	OWR-1151	WestRock Mill Company, LLC

2. If your facility conducts or will be conducting any of the processes listed below (regardless of whether they generate wastewater, waste sludge, or hazardous waste), place a check beside the category of business activity (check all that apply):

Industrial Categories

- ☐ Aluminum Forming
- ☐ Asbestos Manufacturing
- ☐ Battery Manufacturing
- ☐ Can Making
- ☐ Canned and Preserved Fruit and Vegetables
- ☐ Canned and Preserved Seafood
- ☐ Cement Manufacturing
- ☐ Centralized Waste Treatment
- ☐ Carbon Black
- ☐ Coal Mining
- ☐ Coil Coating
- ☐ Copper Forming
- ☐ Electric and Electronic Components Manufacturing
- ☐ Electroplating
- ☐ Explosives Manufacturing
- ☐ Feedlots
- ☐ Ferroalloy Manufacturing
- ☐ Fertilizer Manufacturing
- ☐ Foundries (Metal Molding and Casting)
- ☐ Glass Manufacturing
- ☐ Grain Mills
- ☐ Gum and Wood Chemicals Manufacturing
- ☐ Inorganic Chemicals
- ☐ Iron and Steel
- ☐ Leather Tanning and Finishing
- ☐ Metal Finishing
- ☐ Meat Products
- ☐ Metal Molding and Casting
- ☐ Metal Products
- ☐ Nonferrous Metals Forming
- ☐ Nonferrous Metals Manufacturing
- ☐ Oil and Gas Extraction
- ☐ Organic Chemicals Manufacturing
- ☐ Paint and Ink Formulating
- ☐ Paving and Roofing Manufacturing
- ☐ Pesticides Manufacturing
- ☐ Petroleum Refining
- ☐ Phosphate Manufacturing
- ☐ Photographic
- ☐ Pharmaceutical
- ☐ Plastic & Synthetic Materials
- ☐ Plastics Processing Manufacturing
- ☐ Porcelain Enamel
- ☒ Pulp, Paper, and Fiberboard Manufacturing
- ☐ Rubber
- ☐ Soap and Detergent Manufacturing
- ☐ Steam and Electric
- ☐ Sugar Processing
- ☐ Textile Mills
- ☐ Timber Products
- ☐ Transportation Equipment Cleaning
- ☐ Waste Combustion
- ☐ Other (specify)_____

A facility with processes inclusive in these business areas may be covered by Environmental Protection (EPA) categorical standards. These facilities are termed "categorical users" and should skip to question 2 of Section C.

3. Give a brief description of all operations at this facility including primary products or services (attach additional sheets if necessary):

WestRock Mill Company, LLC operates a bleached Kraft pulp and paperboard mill in Demopolis, Alabama. The pulp and paperboard mill produces bleached Kraft paperboard and market bleached pulp from bleached Kraft pulp. Process wastewater and storm water are discharged to the facility's wastewater treatment system. Additional storm water is discharged from permitted storm water outfalls.

SECTION C – WASTEWATER DISCHARGE INFORMATION

Facilities that checked activities in B.2 and are considered Categorical Industrial Users should skip to C.2 of this section.

1. **For Non-Categorical Users Only**: Provide wastewater flows for each of the processes or proposed processes. Using the process flow schematic (Figure 1), enter the description that corresponds to each process. **(The flow schematic should include all treatment units as well as monitoring and discharge points).** [New facilities should provide estimates for each discharge.]

Process Description	Last 12 Months (gals/day) Highest Month Avg. Flow	Highest Flow Year of Last 5 (gals/day) Monthly Avg. Flow	Discharge Type (batch, continuous, intermittent)
Not Applicable			

If batch discharge occurs or will occur, indicate: [new facilities may estimate.]

a. Number of batch discharges: _____ per day

b. Average discharge per batch: _____ (GPD)

c. Time of batch discharges _____ (days of week) at _____ (hours of day)

d. Flow rate: _____ gallons/minute

e. Percent of total discharge: _____

Non-Process Discharges (e.g. non-contact cooling water)	Last 12 Months (gals/day) Highest Month Avg. Flow	Highest Flow Year of Last 5 (gals/day) Monthly Avg. Flow

2. **Complete this Section only if you are subject to Categorical Standards and plan to directly discharge the associated wastewater to a water of the State.** If Categorical wastewater is discharged exclusively via an indirect discharge to a public or privately-owned treatment works, check "Yes" in the appropriate space below and proceed directly to part 2.c .

☐ Yes

For Categorical Users: Provide the wastewater discharge flows or production (whichever is applicable by the effluent guidelines) for each of your processes or proposed processes. Using the process flow schematic (Figure 1, pg 14), enter the description that corresponds to each process. [New facilities should provide estimates for each discharge.]

2a.

Regulated Process	Applicable Category	Applicable Subpart	Type of Discharge Flow (batch, continuous, intermittent)
Market Bleached Pulp	40 CFR Part 430	Subpart B	Continuous
Bleached Paperboard	40 CFR Part 430	Subpart B	Continuous
Unbleached Pulp	40 CFR Part 430	Subpart B	Continuous

2b.

Process Description	Last 12 Months (gals/day), (lbs/day), etc. Highest Month Average*	Highest Flow Year of Last 5 (gals/day), (lbs/day), etc. Monthly Average*	Discharge Type (batch, continuous, intermittent)
Market Bleached Pulp	655,807 lbs/day	625,212 lbs/day	Continuous
Bleached Paperboard	2,018,839 lbs/day	1,951,889 lbs/day	Continuous
Unbleached Pulp	2,690,062 lbs/day	2,546,676 lbs/day	Continuous

*** Reported values should be expressed in units of the applicable Federal production-based standard. For example, flow (MGD), production (pounds per day), etc.**

If batch discharge occurs or will occur, indicate: [new facilities may estimate.]

a. Number of batch discharges: _____ per day

b. Average discharge per batch: _____ (GPD)

c. Time of batch discharges _____ (days of week) at _____ (hours of day)

d. Flow rate: _____ gallons/minute

e. Percent of total discharge: _____

2c.

Non categorical Process Description	Last 12 Months (gals/day) Highest Month Avg. Flow	Highest Flow Year of Last 5 (gals/day) Monthly Avg. Flow	Discharge Type (batch, continuous, intermittent)
Not Applicable			

If batch discharge occurs or will occur, indicate: [new facilities may estimate.]

a. Number of batch discharges: _____ per day

b. Average discharge per batch: _____ (GPD)

c. Time of batch discharges _____ (days of week) at _____ (hours of day)

d. Flow rate: _____ gallons/minute

e. Percent of total discharge: _____

2d.

Non-Process Discharges (e.g. non-contact cooling water)	Last 12 Months (gals/day) Highest Month Avg. Flow	Highest Flow Year of Last 5 (gals/day) Monthly Avg. Flow
DSN 005	3,200,000	3,600,000
DSN 006, 007, 008 & 009	N/A - Flows Not Recorded	N/A - Flows Not Recorded

All Applicants must complete C.3 – C.6.

3. Do you share an outfall with another facility? ☐ Yes ■ No (If no, continue to C.4)

For each shared outfall, provide the following:

Applicant's Outfall No.	Name of Other Permittee/Facility	NPDES Permit No.	Where is sample collected by Applicant?

4. Do you have, or plan to have, automatic sampling equipment or continuous wastewater flow metering equipment at this facility?

Current:	Flow Metering	■ Yes	☐ No	☐ N/A
	Sampling Equipment	■ Yes	☐ No	☐ N/A
Planned:	Flow Metering	☐ Yes	☐ No	■ N/A
	Sampling Equipment	☐ Yes	☐ No	■ N/A

If so, please attach a schematic diagram of the sewer system indicating the present or future location of this equipment and describe the equipment below:

DSN 001 outfall discharge flow is continuously measured using a magnetic flow meter; this outfall is equipped with an ISCO sampler. DSN 005 outfall discharge flow is measured across the weir; water depth across the weir is periodically measured.

5. Are any process changes or expansions planned during the next three years that could alter wastewater volumes or characteristics?
☐ Yes ■ No (If no, continue to C.6)

Briefly describe these changes and their anticipated effects on the wastewater volume and characteristics:

6. List the trade name and chemical composition of all biocides and corrosion inhibitors used:

Trade Name	Chemical Composition
See attached list.	

For each biocide and/or corrosion inhibitor used, please include the following information:

(1) 96-hour median tolerance limit data for organisms representative of the biota of the waterway into which the discharge will ultimately reach,
(2) quantities to be used,
(3) frequencies of use,
(4) proposed discharge concentrations, and
(5) EPA registration number, if applicable

SECTION D – WATER SUPPLY

Water Sources (check as many as are applicable):

☐ Private Well ■ Surface Water

☐ Municipal Water Utility (Specify City): ☐ Other (Specify): _____

IF MORE THAN ONE WELL OR SURFACE INTAKE, PROVIDE DATA FOR EACH ON AN ATTACHMENT

City: 2.7 MGD* Well: N/A MGD* Well Depth: _____ Ft. Latitude: _____ Longitude: _____

Surface Intake Volume: 18.6 MGD* Intake Elevation in Relation to Bottom: 12 Ft.

Intake Elevation: 33 Ft. Latitude: 32.45611 deg Longitude: -87.97667 deg

Name of Surface Water Source: Tombigbee River

*** MGD – Million Gallons per Day**

Cooling Water Intake Structure Information

Complete D.1 and D.2 if your water supply is provided by an outside source and not by an onsite water intake structure? (e.g., another industry, municipality, etc...)

1. Does the provider of your source water operate a surface water intake? Yes ☐ No ☐
(If yes, continue, if no, go to Section E.)

a) Name of Provider: _____ b) Location of Provider: _____

c) Latitude: _____ Longitude: _____

2. Is the provider a public water system (defined as a system which provides water to the public for human consumption or which provides only treated water, not raw water)? ☐ Yes ☐ No (If yes, go to Section E, if no, continue.)

Only to be completed if you have a cooling water intake structure or the provider of your water supply uses an intake structure and does not treat the raw water.

3. Is any water withdrawn from the source water used for cooling? ■ Yes ☐ No

4. Using the average monthly measurements over any 12-month period, approximately what percentage of water withdrawn is used exclusively for cooling purposes? 5.8 %

5. Does the cooling water consist of treated effluent that would otherwise be discharged? ☐ Yes ■ No
(If yes, go to Section E, if no, complete D.6 – D.17)

6. a. Is the cooling water used in a once-through cooling system? ☐ Yes ■ No

b. Is the cooling water used in a closed cycle cooling system? ■ Yes ☐ No

Attachment to Form 187 Item C.6 – Biocides and Corrosion Inhibitors Used by WestRock Mill Company, LLC's Demopolis Mill

Product Name	Product Type	96-Hour Median Tolerance Limit	Quantity To Be Used	Frequency of Use	Proposed Discharge Concentration	EPA Registration Number
Bulab 6004 (Sodium Hypochlorite 12.5%)	Biocide	1.4 mg/L	1,250 lbs/day	Continuous	<0.1 mg/L	1448-20001
Millsperse 954 (Phosphoric Acid, Zinc Chloride)	Corrosion Inhibitor	3.30 mg/L	320 lbs/day	Continuous	1.62 mg/L	Not Registered[1]
Nalcon 7649 (Dibromoaceto-nitrile, 2,2-Dibromo-3-Nitrilo-propionamide, and Polyethylene Glycol)	Biocide	2.8 mg/L	1.4 lbs/day	Continuous	0.01 mg/L	1706-138
Nalcon 7678 (Cupric Nitrate, Magnesium Nitrate, 2-Methyl-4-Isothiazolin-3-one, and 5-Chloro-2-Methyl-4-Isothiazolin-3-one)	Biocide	4.31 mg/L	51 lbs/day	Continuous	0.36 mg/L	1706-170
Oxamine 6150 (Aqueous Ammonia)	Biocide	117 mg/L	500 lbs/day	Continuous	3.6 mg/L	1448-433
Sodium Hypochlorite (Sodium Hypochlorite, Sodium Hydroxide)	Biocide	0.22-0.62 mg/L	100 lbs/day	Continuous	<0.1 mg/L	266-20001
Performax 2021A (No Hazardous Ingredients Listed)	Corrosion Inhibitor	1,000 mg/L	150 lbs/day	Continuous	7.1 mg/L	Not Registered

[1] Approved by ADEM in 2014 for use by the Demopolis Mill

7. When was the intake installed? 1957
(Please provide dates for all major construction/installation of intake components including screens)

8. What is the maximum intake volume? 48,000,000
(maximum pumping capacity in gallons per day)

9. What is the average intake volume? 18,600,000
(average intake pump rate in gallons per day average in any 30-day period)

10. What is the actual intake flow (AIF) as defined in 40 CFR §125.92(a)? 18.6 MGD

11. How is the intake operated? (e.g., continuously, intermittently, batch) Continuously

12. What is the mesh size of the screen on your intake? Vertical bars with approximately 3-inch centers

13. What is the intake screen flow-through area? 128 square feet (2 screen panels of 12 feet by 6 feet)

14. What is the through-screen design intake flow velocity? 0.580 ft/sec

15. What is the through-screen actual velocity (in ft/sec)? 0.225 ft/sec

16. What is the mechanism for cleaning the screen? (e.g., does it rotate for cleaning) Periodic manual cleaning by boat

17. Do you have any additional fish detraction technology on your intake? ☐ Yes ■ No

18. Have there been any studies to determine the impact of the intake on aquatic organisms? ☐ Yes ■ No (If yes, please provide.)

19. Attach a site map showing the location of the water intake in relation to the facility, shoreline, water depth, etc.

SECTION E – WASTE STORAGE AND DISPOSAL INFORMATION

Provide a description of the location of all sites involved in the storage of solids or liquids that could be accidentally discharged to a water of the state, either directly or indirectly via such avenues as storm water drainage, municipal wastewater systems, etc., which are located at the facility for which the NPDES application is being made. Where possible, the location should be noted on a map and included with this application:

Description of Waste	Description of Storage Location
See Description of Wastes in application text.	See Storage Locations in attached Site Map.

Provide a description of the location of the ultimate disposal sites of solid or liquid waste by-products (such as sludges) from any wastewater treatment system located at the facility.

Description of Waste	Quantity (lbs/day)	Disposal Method*
See application text.		

***Indicate which wastes identified above are disposed of at an off-site treatment facility and which are disposed of on-site. If any wastes are sent to an off-site centralized waste treatment facility, identify the waste and the facility.**

SECTION F – COASTAL ZONE INFORMATION

Is the discharge(s) located within the 10-foot elevation contour and within the limits of Mobile or Baldwin County? ☐ Yes ■ No
If yes, complete items F.1 – F.12:

	Yes	No
1. Does the project require new construction?	☐	☐
2. Will the project be a source of new air emissions?	☐	☐

		Yes	No
3.	Does the project involve dredging and/or filling of a wetland area or water way?	☐	☐
	If Yes, has the Corps of Engineers (COE) permit been received?	☐	☐
	COE Project No. _____		
4.	Does the project involve wetlands and/or submersed grassbeds?	☐	☐
5.	Are oyster reefs located near the project site?	☐	☐
	If Yes, include a map showing project and discharge location with respect to oyster reefs		
6.	Does the project involve the site development, construction and operation of an energy facility as defined in ADEM Admin. Code r. 335-8-1-.02(bb)?	☐	☐
7.	Does the project involve mitigation of shoreline or coastal area erosion?	☐	☐
8.	Does the project involve construction on beaches or dune areas?	☐	☐
9.	Will the project interfere with public access to coastal waters?	☐	☐
10.	Does the project lie within the 100-year floodplain?	☐	☐
11.	Does the project involve the registration, sale, use, or application of pesticides?	☐	☐
12.	Does the project propose or require construction of a new well or to alter an existing groundwater well to pump more than 50 gallons per day (GPD)?	☐	☐
	If yes, has the applicable permit for groundwater recovery or for groundwater well installation been obtained?	☐	☐

SECTION G – ANTI-DEGRADATION EVALUATION

In accordance with 40 CFR §131.12 and the ADEM Admin. Code r. 335-6-10-.04 for anti-degradation, the following information must be provided, if applicable. It is the applicant's responsibility to demonstrate the social and economic importance of the proposed activity. If further information is required to make this demonstration, attach additional sheets to the application.

1. Is this a new or increased discharge that began after April 3, 1991? ☐ Yes ■ No
   If yes, complete G.2 below. If no, go to Section H.

2. Has an Anti-Degradation Analysis been previously conducted and submitted to the Department for the new or increased discharge referenced in G.1? ☐ Yes ☐ No

   If yes, do not complete this section. If no, and the discharge is to a Tier II waterbody as defined in ADEM Admin. Code r. 335-6-10-.12(4), complete G.2.A – G.2.F below and ADEM Forms 311 and 313 (attached). ADEM Form 313 must be provided for each alternative considered technically viable.

   Information required for new or increased discharges to high quality waters:

   A. What environmental or public health problem will the discharger be correcting?

   _____

   B. How much will the discharger be increasing employment (at its existing facility or as the result of locating a new facility)?

   _____

   C. How much reduction in employment will the discharger be avoiding?

   _____

   D. How much additional state or local taxes will the discharger be paying?

   _____

   E. What public service to the community will the discharger be providing?

   _____

   F. What economic or social benefit will the discharger be providing to the community?

   _____

SECTION H – EPA Application Forms

All Applicants must submit EPA permit application forms. More than one application form may be required from a facility depending on the number and types of discharges or outfalls found. The EPA application forms are found on the Department's website at http://www.adem.alabama.gov/programs/water/waterforms.cnt . The EPA application forms must be submitted in duplicate as follows:

1. All applicants must submit Form 1.
2. Applicants for existing industrial facilities (including manufacturing facilities, commercial facilities, mining activities, and silvicultural activities) which discharge process wastewater must submit Form 2C.
3. Applicants for new industrial facilities which propose to discharge process wastewater must submit Form 2D.
4. Applicants for new and existing industrial facilities which discharge only non-process wastewater (i.e., non-contact cooling water and/or sanitary wastewater) must submit Form 2E.
5. Applicants for new and existing facilities whose discharge is composed entirely of storm water associated with industrial activity must submit Form 2F, unless exempted by § 122.26(c)(1)(ii). If the discharge is composed of storm water and non-storm water, the applicant must also submit Forms 2C, 2D, and/or 2E, as appropriate (in addition to Form 2F).

SECTION I – ENGINEERING REPORT/BMP PLAN REQUIREMENTS

See ADEM 335-6-6-.08(i) & (j)

SECTION J– RECEIVING WATERS

Outfall No.	Receiving Water(s)	303(d) Segment?		Included in TMDL?*	
001	Tombigbee River (AL03160201-0401-103) - Draft Only	■ Yes	☐ No	☐ Yes	■ No
005	Tombigbee River (AL03160201-0401-103) - Draft Only	■ Yes	☐ No	☐ Yes	■ No
		☐ Yes	☐ No	☐ Yes	☐ No
		☐ Yes	☐ No	☐ Yes	☐ No
		☐ Yes	☐ No	☐ Yes	☐ No

*If a TMDL Compliance Schedule is requested, the following should be attached as supporting documentation:

(1) Justification for the requested Compliance Schedule (e.g. time for design and installation of control equipment, etc.);

(2) Monitoring results for the pollutant(s) of concern which have not previously been submitted to the Department (sample collection dates, analytical results (mass and concentration), methods utilized, MDL/ML, etc. should be submitted as available);

(3) Requested interim limitations, if applicable;

(4) Date of final compliance with the TMDL limitations; and,

(5) Any other additional information available to support requested compliance schedule.

SECTION K – APPLICATION CERTIFICATION

The information contained in this form must be certified by a responsible official as defined in ADEM Administrative Code r. 335-6-6-.09 "signatories to permit applications and reports" (see below).

"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."

Signature of Responsible Official: Don Holtzclaw Date Signed: 11/28/18

Name and Title: Don Holtzclaw, General Manager

If the Responsible Official signing this application is <u>not</u> identified in Section A.7, provide the following information:

Mailing Address: 28270 U. S. Highway 80 West

City: Demopolis State: Alabama Zip: 36732

Phone Number: (334) 289-1242 Email Address: Don.Holtzclaw@westrock.com

335-6-6-.09 SIGNATORIES TO PERMIT APPLICATIONS AND REPORTS.

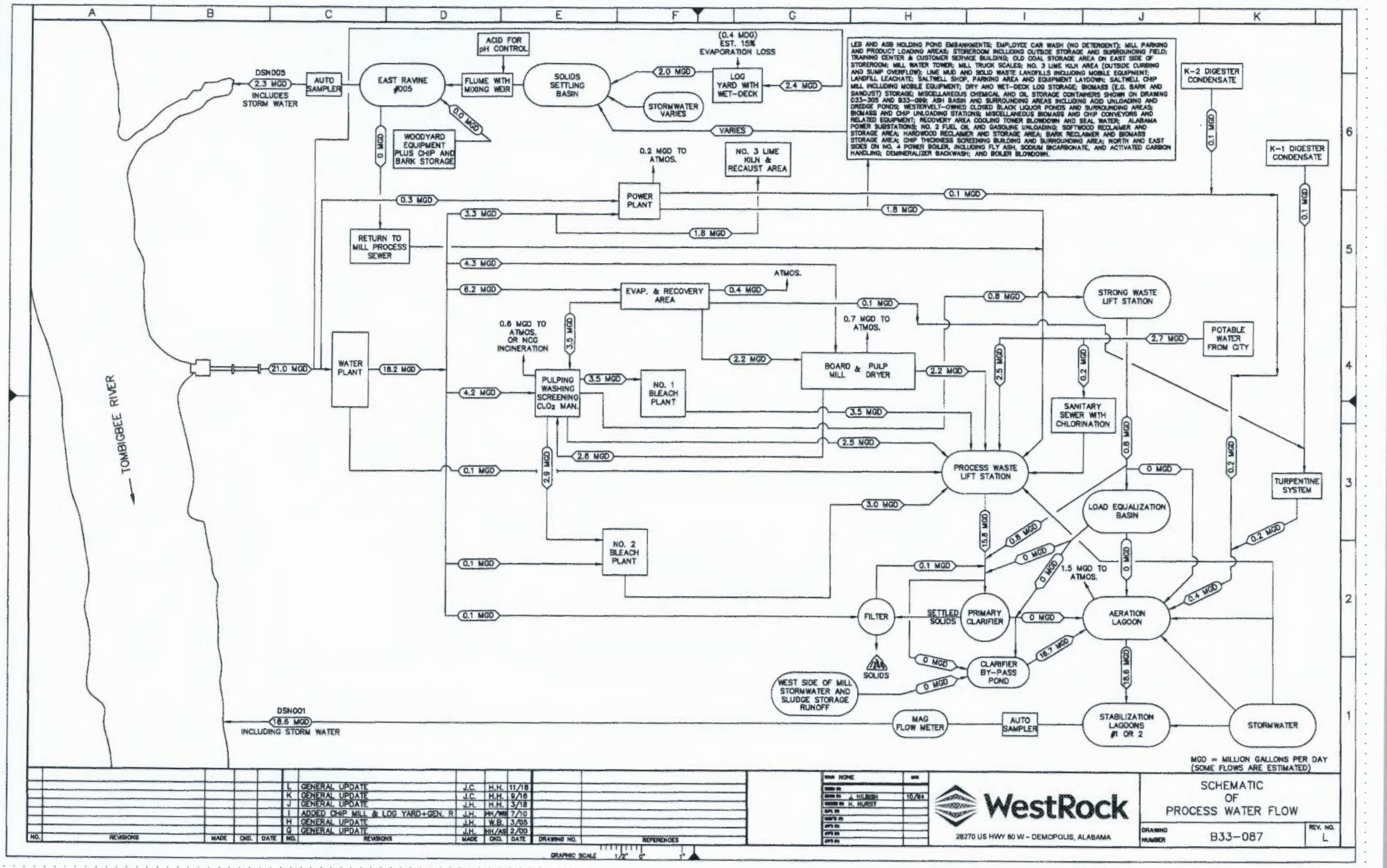
(1) The application for an NPDES permit shall be signed by a responsible official, as indicated below:

(a) In the case of a corporation, by a principal executive officer of at least the level of vice president, or a manager assigned or delegated in accordance with corporate procedures, with such delegation submitted in writing if required by the Department, who is responsible for manufacturing, production, or operating facilities and is authorized to make management decisions which govern the operation of the regulated facility;

(b) In the case of a partnership, by a general partner;

(c) In the case of a sole proprietorship, by the proprietor; or

(d) In the case of a municipal, state, federal, or other public entity, by either a principal executive officer, or ranking elected official.



NO.	REVISIONS	MADE	CKD.	DATE
L	GENERAL UPDATE	J.C.	H.H.	11/18
K	GENERAL UPDATE	J.C.	H.H.	9/16
J	GENERAL UPDATE	J.H.	H.H.	3/15
I	ADDED CHIP MILL & LOG YARD+GEN. R	J.H.	HH/MB	7/10
H	GENERAL UPDATE	J.H.	W.B.	3/05
G	GENERAL UPDATE	J.H.	HH/AS	2/00

DRAWING NO.

REFERENCES

SCALE	NONE
DRAWN BY	J. HUBISH
CHECKED BY	K. HURST
DATE	10/94

GRAPHIC SCALE 1/2" 0" 1"

WestRock

28270 US HWY 80 W ~ DEMOPOLIS, ALABAMA

SCHEMATIC OF PROCESS WATER FLOW

DRAWING NUMBER B33-087

REV. NO. L

Table 2-1
Bleached Kraft Paperboard and Market Pulp Production Rates During Highest 12-Month Period of Production
WestRock Mill Company, LLC – Demopolis, Alabama

Calendar Month	Bleached Paperboard Production (Machine-Dry Short Tons)	Production Days Bleached Paperboard (Days/Month)	Daily Average (Machine-Dry Tons/Month)	Bleached Market Pulp Production (Air-Dry Short Tons)	Production Days Bleached Market Pulp (Days/Month)	Daily Average Bleached Market Pulp (Air-Dry Tons/Month)
June 2017	28,373	29.28	969	9,126	29	313
July 2017	31,248	31	1,008	9,782	31	316
August 2017	31,339	31	1,011	9,449	31	305
September 2017	30,108	30	1,004	9,659	30	322
October 2017	31,612	31	1,020	9,545	31	308
November 2017	27,906	30.33	920	9,489	30	316
December 2017	30,244	31	976	10,092	31	326
January 2018	27,146	31	876	8,397	31	271
February 2018	27,369	28	977	8,866	28	317
March 2018	31,292	31	1,009	10,101	31	326
April 2018	29,840	29.99	995	9,837	30	328
May 2018	27,409	29.00	945	8,049	26	306
12-Month Total	353,886	362.6	975.97	112,390	360	312.2
Highest Annual Average of 5 Years	975.97 Machine-Dry Short Tons/Day Paperboard			312.2 Air-Dry Short Tons/Day Bleached Market Pulp		

Table 2-2
Unbleached Kraft Pulp Production Rates During Highest 12-Month Period of Production
WestRock Mill Company, LLC – Demopolis, Alabama

Calendar Month	A-Line Unbleached Pulp Production (Air-Dry Short Tons)	Production Days A-Line (Days/Month)	Daily Average A-Line (Air-Dry Tons/Month)	B-Line Unbleached Pulp Production (Air-Dry Short Tons)	Production Days B-Line (Days/Month)	Daily Average B-Line (Air-Dry Tons/Month)
May 2016	25,238	31	814.1	12,705	31	409.8
June 2016	27,115	30	903.8	12,745	30	424.8
July 2016	28,484	31	918.9	12,590	31	406.1
August 2016	27,944	31	901.4	12,065	31	389.2
September 2016	26,515	30	883.8	12,199	30	406.6
October 2016	27,397	31	883.8	11,795	31	380.5
November 2016	27,496	30	916.5	10,292	30	343.1
December 2016	26,969	31	870.0	12,467	31	402.2
January 2017	27,085	31	873.7	12,160	31	392.3
February 2017	25,135	28	897.7	10,884	28	388.7
March 2017	25,842	31	833.6	10,808	31	348.6
April 2017	27,263	30	908.8	11,460	30	382.0
12-Month Total	322,484	365	**883.5**	142,169	365	**389.5**
Highest Annual Average of 5 Years	1,273.0 Air-Dry Short Tons/Day Unbleached Pulp					

Table 2-3
Production-Based NPDES Permit Limits
WestRock Mill Company, LLC – Demopolis, Alabama

Category	Description	Limit Basis	Categorical Limits (lbs per 1,000 lbs)				Production (Tons per Day)	Allowable Limits (ppd)			
			Daily Max		Monthly Avg			Daily Max		Monthly Avg	
			BOD5	TSS	BOD5	TSS		BOD5	TSS	BOD5	TSS
Subpart B	Bleached Papergrade Kraft and Soda (Market Pulp)	BPT	15.45	30.4	8.05	16.4	**312.2**	9,647	18,982	5,026	10,240
Subpart B	Bleached Papergrade Kraft and Soda (Paperboard)	BPT	13.65	24.0	7.1	12.9	**975.97**	26,644	46,847	13,859	25,180
						Totals		**36,291**	**65,829**	**18,885**	**35,420**

Notes:

BPT = Best Practical Control Technology Currently Available

ppd = pounds per day

2.2.3 Effluent Pentachlorophenol, Trichlorophenol, and Dioxin

Permit limits for pentachlorophenol and trichlorophenol are required by 40 CFR Part 430 Subpart B unless the permittee agrees to submit a certification of not using these compounds as biocides. WestRock hereby certifies that these compounds are not, and will not be, used by the Demopolis Mill as biocides. Annual certification to this requirement will be provided to ADEM by December 31 as required by the current permit. The facility proposes to continue the existing limit and annual monitoring requirement for 2,3,7,8-tetrachlorodibenzo-p-dioxin.

2.2.4 Effluent Biomonitoring

The current permit requires annual short-term chronic biomonitoring at an in-stream waste concentration (IWC) of 4.0 percent. No changes are proposed to the effluent biomonitoring requirements in the current NPDES permit.

2.2.5 Receiving Stream Monitoring

The Demopolis Mill proposes the following changes to the in-stream monitoring requirements in the current NPDES permit.

The Demopolis Mill is currently required to conduct in-stream monitoring for dissolved oxygen (DO), BOD_5, water temperature, and pH, at a depth of five (5) feet below the river surface at several locations along the Tombigbee River. Monitoring is required at a frequency of once every two weeks between May 1 and November 30, except during unsafe weather conditions. This monitoring requirement can be satisfied with data collected by the Georgia-Pacific Consumer Operations LLC, Naheola Mill.

1. The Demopolis Mill proposes to reduce the period for in-stream monitoring. Our proposed start date to begin in-stream monitoring is June 1 and the proposed completion date is September 30. A review of the in-stream monitoring data collected by the Demopolis Mill during the past 13 years indicates that during the month of May the DO was 7.1 mg/L or greater at 143 river stations measured; during the month of October the DO was 7.0 mg/L or greater at 259 of 267 river stations measured with only one station below 6.7 mg/L DO; and during the month of November the DO was 7.0 mg/L or greater at 183 river stations measured. Based upon this review of historical DO data, the Demopolis Mill requests to eliminate in-stream monitoring during the months of May, October, and November.

2. Please replace "Rock-Tenn" on the second line of the first paragraph with "WestRock."

For the past several years Birch Power Company (BPC) has been pursuing Federal Energy Regulatory Commission (FERC) licensing of Hydroelectric Project No. 13102 on the Demopolis Dam. The Demopolis Dam is located approximately 8.5 miles upriver from our discharge point number DSN 001. ADEM issued BPC a Water Quality Certification to operate this project on September 29, 2016. WestRock and BPC have signed a Water Quality Licensing Settlement Agreement that requires BPC to assume all the WestRock

Demopolis Mill NPDES permit required water quality monitoring if the project is operated. The settlement agreement was submitted to ADEM in BPC letter dated June 15, 2016 and to the FERC in BPC letter dated August 15, 2016. BPC also submitted clarification to FERC on this and other items in their letter dated September 28, 2016. We propose to add an additional paragraph to this section of the permit that reflects the intent of the settlement agreement:

3. If the hydroelectric project identified as FERC Project No. 13102 is constructed on the Demopolis Dam and operated, then receiving stream monitoring will be required by the owners of the project and not WestRock.

2.2.6 Cluster Rule Requirements

The Demopolis Mill proposes to continue to monitor the final effluent and the two bleach plant effluents for the parameters required by the Cluster Rule (40 CFR Part 430 Subpart B). For the purpose of calculating chloroform mass discharge limits, Table 2-2 illustrates that the unbleached daily pulp production rate for the hardwood fiber line (DSN 001A) is 883.5 air-dry tons per day, and the unbleached daily pulp production rate for the softwood fiber line (DSN 001B) is 389.5 air-dry tons per day. For the purpose of calculating AOX mass discharge limits, the combined daily unbleached pulp production rate is 1,273.0 air-dry tons per day.

2.2.7 Monitoring Frequency

The Demopolis Mill has applied EPA's *Interim Guidance for Performance-Based Reduction of NPDES Permit Monitoring Frequencies* (April 1996) to five years of bleach plant internal outfall monitoring data for chloroform. WestRock's evaluation of the long-term average chloroform in each of the A-Line and B-Line bleach plant effluents demonstrates that the chloroform monitoring frequency can be reduced from quarterly to semi-annually without increasing the probability of reporting a violation of monthly average chloroform in the respective bleach plant effluents (DSN 001A and 001B). The Demopolis Mill therefore requests that the proposed reduction in chloroform monitoring frequency from once per quarter to once per six months be incorporated into the NPDES permit renewal. Similarly, WestRock has evaluated the long-term average AOX in DSN 001 and proposes to reduce the AOX monitoring frequency from once per quarter to once per six months.

2.3 Discharge Outfall DSN 005

Storm water runoff from most areas on the east side of the mill and runoff from the Lime Mud Landfill, Solid Waste Landfill, Ash Basin, and Saltwell Chip Mill is discharged to the Tombigbee River through outfall DSN 005 (see complete list of sources on pages 1-4 and 1-5). The Demopolis Mill has shut down the No. 1 and No. 3 Power Boilers and associated wet scrubbing systems; scrubber blowdown from these power boilers formerly discharged to this outfall. Boiler blowdown from the No. 4 and No. 5 Power Boilers is now discharged to this outfall. Wet deck log storage runoff (DSN 005A) also discharges to this outfall. No changes are proposed to the monitoring requirements for DSN 005 or DSN 005A in the current NPDES permit.

2.4 Storm Water Outfalls (DSN 006, 007, 008, 009, and 010)

Storm water runoff from the borrow pit is discharged to the Tombigbee River through outfall DSN 006 and storm water runoff from log entrance roads is discharged to an unnamed tributary to the Tombigbee River through outfalls DSN 007 and DSN 008. The existing permit requires annual monitoring of outfalls DSN 006 and DSN 007 for flow, TSS, and oil & grease. No changes have been proposed to the monitoring for existing storm water outfalls DSN 006, DSN 007, or DSN 008 in the current NPDES permit.

A portion of the storm water runoff from the mill road north of the Bark Pile drains to the north prior to discharge to the Tombigbee River. This discharge outfall is currently permitted by ADEM General Permit ALG060521, which became effective on January 1, 2018. WestRock is proposing to add DSN 009 and DSN 010 to the individual NPDES permit to replace the two outfalls covered by the general NPDES permit. The Demopolis Mill proposes to monitor flow, pH, TSS, and oil & grease at a frequency of once per calendar year for Outfalls DSN 009 and DSN 010.

The existing permit required the development of a Best Management Practices (BMP) plan for controlling the contamination of storm water runoff from areas associated with industrial activity. This BMP plan has been prepared and implemented by the Demopolis Mill. Results from the monitoring activities are used to evaluate the effectiveness of the BMP plan. The continued implementation of the plan in conjunction with the monitoring should be adequate to ensure protection of water quality in the receiving waters.

The Demopolis Mill proposes a change to the stormwater sampling requirement associated rain events and DSN007. Part I, page 15 of 48 and Part IV.C, page 44 of 48 appear to limit how soon after a storm event that sampling can occur. The statement in the permit is, "The duration between the storm event sampled and the end of the previous measurable (greater than 0.1-inch rainfall) storm event must be a minimum of 72 hours." Even though this statement is under the stormwater flow measurement section of the permit, this sentence has been interpreted to apply to pH and TSS grab sampling. DSN007 has a small drainage area and oftentimes no flow occurs at the sampling location after rain events. We request some type of permitting relief. If the 72-hour requirement does not apply to pH and TSS grab sampling, then add a clarifying statement in the permit. If the 72-hour requirement is intended to apply to pH and TSS grab sampling, we request this statement be changed to something similar to, "The duration between the storm event sampled and the end of the previous measurable (greater than 0.1 inch rainfall) storm event that resulted in stormwater runoff at the sampling location must be a minimum of 72 hours."

Biocide Certification

WestRock Mill Company, LLC – Demopolis Mill

NPDES Permit No. AL0002828

In accordance with the requirements of 40 CFR 430.24(e), I hereby certify that WestRock Mill Company, LLC's Demopolis Mill does not utilize trichlorophenolic-containing or pentachlorophenolic-containing biocides in our process operations.

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 for fine and imprisonment for knowing violations.

Signature

11/28/18
Date

Don Holtzclaw, General Manager
Name and Title of Responsible Corporate Official

Best Management Practices Implementation Certification

WestRock Mill Company, LLC – Demopolis Mill

NPDES Permit No. AL0002828

In accordance with the requirements of 40 CFR 430.03, I hereby certify that WestRock Mill Company, LLC's Demopolis Mill has fully implemented all of the listed requirements for preparation and implementation of its BMP Plan, and met all compliance deadlines for establishing and revising all action levels as set forth in Part IV.A of the NPDES permit.

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 for fine and imprisonment for knowing violations.

Signature

11/28/18
Date

Don Holtzclaw, General Manager
Name and Title of Responsible Corporate Official

Please print or type in the unshaded areas only
(fill-in areas are spaced for elite type, i.e., 12 characters/inch).

For Approved. OMB No. 2040-0086. Approval expires 5-31-92

FORM 1 GENERAL

U.S. ENVIRONMENTAL PROTECTION AGENCY

GENERAL INFORMATION

Consolidated Permits Program

(Read the "General Instructions" before starting.)

I. EPA I.D. NUMBER

S		T/A	C
F	ALD004003380		D
1	2 — 13	14	15

LABEL ITEMS

- I. EPA I.D. NUMBER
- III. FACILITY NAME
- V. FACILITY MAILING LIST
- VI. FACILITY LOCATION

PLEASE PLACE LABEL IN THIS SPACE

GENERAL INSTRUCTIONS

If a preprinted label has been provided, affix it in the designated space. Review the information carefully; if any of it is incorrect, cross through it and enter the correct data in the appropriate fill-in area below. Also, if any of the preprinted data is absent *(the area to the left of the label space lists the information that should appear)*, please provide it in the proper fill-in area(s) below. If the label is complete and correct, you need not complete Items I, III, V, and VI *(except VI-B which must be completed regardless)*. Complete all items if no label has been proved. Refer to the instructions for detailed item descriptions and for the legal authorization under which this data is collected.

II. POLLUTANT CHARACTERISTICS

INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental from listed in the parenthesis following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of **bold-faced terms**.

SPECIFIC QUESTIONS	MARK "X" YES	NO	FORM ATTACHED
A. Is this facility a **publicly owned treatment works** which results in a **discharge** to **waters of the U.S.?** (FORM 2A)	☐ 16	☒ 17	☐ 18
B. Does or will this facility *(either existing or proposed)* include a **concentrated animal feeding operation** or **aquatic animal production facility** which results in a **discharge** to **waters of the U.S.?** (FORM 2B)	☐ 19	☒ 20	☐ 21
C. Is this facility which currently results in **discharges** to **waters of the U.S.** other than those described in A or B above? (FORM 2C)	☒ 22	☐ 23	☒ 24
D. Is this proposal facility *(other than those described in A or B above)* which will result in a **discharge** to **waters of the U.S.?** (FORM 2D)	☐ 25	☒ 26	☐ 27
E. Does or will this facility treat, store, or dispose of **hazardous wastes?** (FORM 3)	☐ 28	☒ 29	☐ 30
F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4)	☐ 31	☒ 32	☐ 33
G. Do you or will you inject at this facility any produced water other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4)	☐ 34	☒ 35	☐ 36
H. Do you or will you inject at this facility fluids for special processes such as mining of sulfer by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4)	☐ 37	☒ 38	☐ 39
I. Is this facility a proposed **stationary source** which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an **attainment area?** (FORM 5)	☐ 40	☒ 41	☐ 42
J. Is this facility a proposed **stationary source** which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an **attainment are?** (FORM 5)	☐ 43	☒ 44	☐ 45

III. NAME OF FACILITY

C 1 | SKIP (15, 16-29) | WESTROCK MILL COMPANY, LLC – DEMOPOLIS MILL (30–69)

IV. FACILITY CONTACT

	A. NAME & TITLE *(last, first, & title)*	B. PHONE *(area code & no.)*
C 2	HURST, JR., JAMES H., DIRECTOR OF ENVIRONMENTAL COMPLIANCE (16–45)	334 (46–48) 289 (49–51) 6228 (52–55)

V. FACILITY MAILING ADDRESS

A. STREET OR P.O. BOX

C 3 | 28270 U. S. HIGHWAY 80 WEST (16–45)

B. CITY OR TOWN	C. STATE	D. ZIP CODE
C 4 DEMOPOLIS (16–40)	AL (41–42)	36732 (47–51)

VI. FACILITY LOCATION

A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER

C 5 | 28270 U. S. HIGHWAY 80 WEST (16–45)

B. COUNTY NAME

MARENGO (46–70)

C. CITY OR TOWN	D. STATE	E. ZIP CODE	F. COUNTY CODE
C 6 DEMOPOLIS (16–40)	AL (41–42)	36732 (47–51)	(52–54)

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VII. SIC CODES (4-digit, in order of priority)

A. FIRST		B. SECOND	
2631	(specify) BLEACHED FOODBOARD	2611	(specify) MARKET PULP
C. THIRD		**D. FOURTH**	
	(specify)		(specify)

VIII. OPERATOR INFORMATION

A. NAME	B. Is the name listed in Item VIII-A also the owner?
WESTROCK MILL COMPANY, LLC	☒ YES ☐ NO

C. STATUS OF OPERATOR (Enter the appropriate letter into the answer box; if "Other," specify.)

F = FEDERAL; S = STATE; P = PRIVATE; M = PUBLIC (other than federal or state); O = OTHER (specify)

P

D. PHONE (area code & no.): 334 289 1242

E. STREET OR PO BOX: 28270 U. S. HIGHWAY 80 WEST

F. CITY OR TOWN	G. STATE	H. ZIP CODE
DEMOPOLIS	AL	36732

IX. INDIAN LAND

Is the facility located on Indian lands? ☐ YES ☒ NO

X. EXISTING ENVIRONMENTAL PERMITS

A. NPDES (Discharges to Surface Water): AL0002828	D. PSD (Air Emissions from Proposed Sources): NA	
B. UIC (Underground Injection of Fluids): NA	E. OTHER (specify): 105-0001	(Specify) MAJOR SOURCE OPERATING PERMIT
C. RCRA (Hazardous Wastes): NA	E. OTHER (specify): SEE ATTACHED LIST	(Specify)

XI. MAP

Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in the map area. See instructions for precise requirements. **See attached Figure 4 in Appendix B.**

XII. NATURE OF BUSINESS (provide a brief description)

WestRock Mill Company, LLC's Demopolis Mill is an integrated bleached Kraft pulp and paperboard mill that manufactures food-grade bleached coated paperboard and market bleached pulp from bleached Kraft pulp.

XIII. CERTIFICATION (see instructions)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME & OFFICIAL TITLE (type or print)	B. SIGNATURE	C. DATE SIGNED
DON HOLTZCLAW, GENERAL MANAGER	Don Holtzclaw	11/28/18

COMMENTS FOR OFFICIAL USE ONLY

Attachment to EPA Form 1 Item X and ADEM Form 187 Item A.14
Environmental Permits
WestRock Mill Company, LLC – Demopolis, Alabama

Type of Permit	Permit Number	Permit Held By
NPDES Individual Permit – Demopolis Mill	AL0002828	WestRock Mill Company, LLC
NPDES General Permit – Demopolis Mill Bark Pile	ALG060521	WestRock Mill Company, LLC
NPDES General Permit – Rooster Bridge Chip Mill	ALG060170	WestRock Mill Company, LLC
Industrial Waste Landfill Permit – Lime Mud Landfill	46-02	WestRock Mill Company, LLC
Industrial Waste Landfill Permit – Solid Waste Landfill	46-03	WestRock Mill Company, LLC
Major Source Operating Permit – Demopolis Mill	105-0001	WestRock Mill Company, LLC
ADECA Certificate of Use – Demopolis Mill	OWR-0138	WestRock Mill Company, LLC
ADECA Certificate of Use – Rooster Bridge Chip Mill	OWR-1151	WestRock Mill Company, LLC

Please type or print in the unshaded areas only

EPA ID Number *(Copy from Item 1 of Form 1)*
ALD004003380

Form Approved
OMB No. 2040-0086
Approval expires 7-31-88

Form **2C** NPDES

U.S. ENVIRONMENTAL PROTECTION AGENCY
APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER
EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICUTLRAL OPERATIONS
Consolidated Permits Program

I. Outfall Location

For this outfall, list the latitude and longitude, and name of the receiving water(s)

Outfall Number *(list)*	Latitude			Longitude			Receiving Water *(name)*
	Deg	Min	Sec	Deg	Min	Sec	
001	32	27	30	87	58	58	Tombigbee River
005	32	27	25	87	58	15	Tombigbee River

II. Flows, Sources of Pollution, and Treatment Technologies

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed description in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (e.g, for certain mining activities), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.

B. For each outfall, provide a description of (1) all operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and stormwater runoff; (2) the average flow contributed by each operation; and (3) the treatment received by the wastewater. Continue on additional sheets if necessary.

1. Outfall Number	2. Operations Contributing Flow		3. Treatment		
	a. OPERATION *(list)*	b. AVERAGE FLOW	a. DESCRIPTION	b. LIST CODES FROM TABLE 2C-1	
001	Sanitary Sewer	< 0.1 MGD	Chlorination	2-F	
001	Power Plant / Feedwater	1.8 MGD	Load Equalization	1-O	1-U
001	Multiple-Effect Evaporators	0.1 MGD	Primary Clarifier	1-O	1-U
001	Digesters/Blow Tanks	0.8 MGD	Clarifier Bypass Pond	1-U	
001	Pulp Washing/Screening	2.5 MGD	Aeration Lagoon	3-B	
001	Pulp Bleaching	6.5 MGD	Pump Station	1-O	2-K
001	Board Machine/Pulp Dryer	2.2 MGD	Polishing Ponds	3-G	
001	Kraft Pulping Condensate	0.4 MGD	Sludge Filtration	5-U	
001	Primary Clarifier/Filter House	0.1 MGD	Discharge	4-A	
001	Storm Runoff (10 Yr/24 Hr)	46.1 MGD			
005	Car Wash	<0.1 MGD	Settling Basin	1-U	
005	Landfill Leachate	<0.1 MGD	East Raving Settling	1-U	
005	Log Storage With Wet Deck	2.0 MGD	Flume/Mixing Weir	1-O	2-K
005	Saltwell Chip Mill	<0.1 MGD	Discharge	4-A	
005	Sanitary Sewer	<0.1 MGD			
005	Demin. Acid Backwash Water	<0.1 MGD			
005	Lime Kiln/Recaust Area	<0.1 MGD			
005	Blowdown Seal Water/Ash Silos	<0.1 MGD			
005	Potable Water	<0.1 MGD			
005	Storm Runoff (10 Yr/24 Hr)	51.3 MGD			

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C. Except for storm runoff, leaks, or spills, are any of the discharges described in Items II-A or B intermittent or seasonal?

☐ **YES** *(complete the following table)* ☒ **NO** *(go to Section III)*

1. OUTFALL NUMBER (list)	2. OPERATION(s) CONTRIBUTING FLOW (list)	3. FREQUENCY		4. FLOW				
		a. DAYS PER WEEK (specify average)	b. MONTHS PER YEAR (specify average)	a. FLOW RATE (in mgd)		b. TOTAL VOLUME (specify with units		c. DURATION (in days)
				1. LONG TERM AVERAGE	2. MAXIMUM DAILY	1. LONG TERM AVERAGE	2. MAXIMUM DAILY	

III. PRODUCTION

A. Does an effluent guideline limitation promulgated by EPA under Section 304 of the Clean Water Act apply to your facility?

☒ **YES** *(complete Item III-B)* ☐ **NO** *(go to Section IV)*

B. Are the limitations in the applicable effluent guideline expressed in terms of production *(or other measure of operation)*?

☒ **YES** *(complete Item III-C)* ☐ **NO** *(go to Section IV)*

C. If you answered "yes" to Item III-B, list the quantity which represents an actual measurement of your level of production, expressed in the terms and units used in the applicable effluent guideline, and indicate the affected outfalls.

1. AVERAGE DAILY PRODUCTION			2. AFFECTED OUTFALLS (list outfall numbers)
a. QUANTITY PER DAY	b. UNITS OF MEASURE	c. OPERATION, PRODUCT, MATERIAL, ETC. (specify)	
975.97	***Machine-Dry Tons***	***Subpart B – Bleached Papergrade Kraft Board***	***001 and 005***
312.2	***Air-Dry Tons***	***Subpart B – Bleached Kraft Market Pulp***	***001 and 005***

IV. IMPROVEMENTS

A. Are you now required by any Federal, State, or local authority to meet any implementation schedule for the construction, upgrading, or operation of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

☐ **YES** *(complete the following table)* ☒ **NO** *(go to Item IV-B)*

1. IDENTIFICATION OF CONDITION, AGREEMENT, ETC.	2. AFFECTED OUTFALLS		3. BRIEF DESCRIPTION OF PROJECT	4. FINAL COMPLIANCE DATE	
	a. No	b. SOURCE OF DISCHARGE		a. REQUIRED	b. PROJECTED

B. OPTIONAL: You may attach additional sheets describing any additional water pollution control programs *(or other environmental projects which may affect your discharges)* you now have underway or which you plan. Indicate whether each program is now underway or planned, and indicate your actual or planned schedules for construction.

☐ **MARK "X" IF DESCRIPTION OF ADDITIONAL CONTROL PROGRAM IS ATTACHED**

CONTINUED FROM PAGE 2

V. INTAKE AND EFFLUENT CHARACTERISTICS

A, B, & C: See instructions before proceeding - Complete one set of tables or each outfall - Annotate the outfall number in the space provided. **NOTE:** Tables V-A, V-B, and V-C are included on separate sheets number V-1 through V-9.

D: Use the space below t list any of the pollutants listed in Tables 2c-3 of the instructions, which you know or have reason to believe is discharged or may be discharged from any outfall. For every pollutant you list, briefly describe the reasons you believe it to be present and report any analytical data in your possession.

1. POLLUTANT	2. SOURCE	1. POLLUTANT	2. SOURCE
None			

VI. POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

Is any pollutant listed in Item V-C a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?

☒ **YES** *(list all such pollutants below)* ☐ **NO** *(go to Item VI-B)*

Based on the regulatory guidance and Effluent Limitations established in the Integrated Pulp and Paper Cluster Rule, 2,3,7,8-TCDD is assumed to be present in the effluent from mills that utilize the elemental chlorine-free bleaching process. The Demopolis Mill collects samples semi-annually from the softwood and hardwood bleach plant outfalls (before effluent treatment) and from the final outfall and has not detected 2,3,7,8-TCDD in any of its samples.

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VII. BIOLOGICAL TOXICITY TESTING DATA

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☒ **YES** *(identify the test(s) and describe their purpose below)* ☐ **NO** *(go to Section VIII)*

Short-term chronic toxicity tests are performed once per year, and test results have been submitted to ADEM as required by current NPDES permit.

VIII. CONTRACT ANALYSIS INFORMATION

Were any of the analyses reported in Item V performed by a contract laboratory or consulting firm?

☒ **YES** *(list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below)* ☐ **NO** *(go to Section IX)*

A. NAME	B. ADDRESS	C. TELEPHONE *(area code & no.)*	D. POLLUTANTS ANALYZED *(list)*
Energy Technical	***14176 Highway 69 North***	***(205) 330-7994***	***Form 2C pollutants***
Services, LLC	***Northport, AL 35475***	( )	***(excluding BOD, TSS,***
		( )	***and pH)***
		( )	
		( )	
		( )	
		( )	
		( )	
		( )	
		( )	
		( )	
		( )	
		( )	

IX. 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.

A. NAME & OFFICIAL TITLE *(type or print)*	B. PHONE NO. *(area code & no.)*
Don Holtzclaw, General Manager	***(334) 289-1242***
C. SIGNATURE *Don Holtzclaw*	D. DATE SIGNED *11/28/18*

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets *(use the same format)* instead of completing these pages. SEE INSTRUCTIONS.

EPA I.D. NUMBER *(copy from Item 1 of Form 1)*
ALD004003380

V. INTAKE AND EFFLUENT CHARACTERISTICS *(continued from page 3 of Form 2-C)* — **DSN 001**

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	2. EFFLUENT a. MAXIMUM DAILY VALUE (2) MASS	2. EFFLUENT b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCENTRATION	2. EFFLUENT b. MAXIMUM 30 DAY VALUE *(if available)* (2) MASS	2. EFFLUENT c. LONG TERM AVRG. VALUE *(if available)* (1) CONCENTRATION	2. EFFLUENT c. LONG TERM AVRG. VALUE *(if available)* (2) MASS	2. EFFLUENT d. NO. OF ANALYSIS	3. UNITS *(specify if blank)* a. CONCENTRATION	3. UNITS *(specify if blank)* b. MASS	4. INTAKE *(optional)* a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	4. INTAKE *(optional)* a. LONG TERM AVERAGE VALUE (2) MASS	4. INTAKE *(optional)* b. NO. OF ANALYSES
a. Biochemical Oxygen Demand *(BOD)*	83	13,020	44	6,561	27	3,806	424	mg/L	lb/day			
b. Chemical Oxygen Demand *(COD)*	34	6,406	34	5,414	34	4,762	1	mg/L	lb/day			
c. Total Organic Carbon *(TOC)*	16.0	3,015	16.0	2,548	16.0	2,241	1	mg/L	lb/day			
d. Total Suspended Solids *(TSS)*	121	17,782	44	6,632	23	3,291	424	mg/L	lb/day			
e. Ammonia *(as N)*	1.85	349	1.85	295	1.85	259	1	mg/L	lb/day			
f. Flow	Value 22.6		Value 19.1		Value 16.8		424		MGD	Value		
g. Temperature *(winter)*	Value NA		Value NA		Value NA		0	°C		Value		
h. Temperature *(summer)*	Value NA		Value NA		Value NA		0	°C		Value		
i. pH	Minimum 7.0	Maximum 8.5	Minimum 7.6	Maximum 8.5			424	STANDARD UNTIS				

PART B - Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitation guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. *(if available)*	2. MARK 'X' a. BELIEVED PRESENT	2. MARK 'X' b. BELIEVED ABSENT	2. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	2. EFFLUENT a. MAXIMUM DAILY VALUE (2) MASS	2. EFFLUENT b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCENTRATION	2. EFFLUENT b. MAXIMUM 30 DAY VALUE *(if available)* (2) MASS	2. EFFLUENT c. LONG TERM AVRG. VALUE *(if available)* (1) CONCENTRATION	2. EFFLUENT c. LONG TERM AVRG. VALUE *(if available)* (2) MASS	2. EFFLUENT d. NO. OF ANALYSIS	3. UNITS *(specify if blank)* a. CONCENTRATION	3. UNITS *(specify if blank)* b. MASS	4. INTAKE *(optional)* a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	4. INTAKE *(optional)* a. LONG TERM AVERAGE VALUE (2) MASS	4. INTAKE *(optional)* b. NO. OF ANALYSES
a. Bromide (24959-67-9)	☒	☐	< 10.0	< 1,884					1	mg/L	lb/day			
b. Chlorine, Total Residual	☐	☒												
c. Color	☒	☐	1,997						1	PCU				
d. Fecal Coliform	☐	☒												
e. Fluoride (16984-48-8)	☐	☒												
f. Nitrate-Nitrite *(as N)*	☒	☐	2.62	494	2.62	417	1.05	147	20	mg/L	lb/day			

ITEM V-B CONTINUED FROM FRONT

1. POLLUTANT AND CAS NO. *(if available)*	2. MARK 'X'		2. EFFLUENT						d. NO. OF ANALYSIS	3. UNITS *(specify if blank)*		4. INTAKE *(optional)*		
	a. BELIEVED PRESENT	b. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*			a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
g. Nitrogen, Total Organic *(as N)*	☒	☐	0.39	73.5					1	mg/L	lb/day			
h. Oil and Grease	☒	☐	1.7	320					1	mg/L	lb/day			
i. Phosphorus *(as P)*, Total (7723-14-0)	☒	☐	1.76	332	1.76	280	0.98	137	20	mg/L	lb/day			
j. Radioactivity														
(1) Alpha, Total	☒	☐	9.3						1	pCi/L				
(2) Beta, Total	☒	☐	23.6						1	pCi/L				
(3) Radium, Total	☒	☐	0.596						1	pCi/L				
(4) Radium 226, Total	☒	☐	0.14						1	pCi/L				
k. Sulfate *(as SO_4)* *(14808-79-8)*	☒	☐	678.4	127,829					1	mg/L	lb/day			
l. Sulfide (as S)	☒	☐	< 0.1	< 18.8					1	mg/L	lb/day			
m. Sulfite *(as SO_3)* *(14265-45-3)*	☐	☒												
n. Surfactants	☒	☐	< 0.20	< 37.7					1	mg/L	lb/day			
o. Aluminum, Total (7429-90-5)	☒	☐	1.059	200					1	mg/L	lb/day			
p. Barium, Total (7440-39-3)	☒	☐	0.087	16.4					1	mg/L	lb/day			
q. Boron, Total (7440-42-8)	☐	☒												
r. Cobalt, Total (7440-48-4)	☐	☒												
s. Iron, Total (7439-89-4)	☒	☐	0.646	122					1	mg/L	lb/day			
t. Magnesium, Total (7439-95-4)	☒	☐	4.564	860					1	mg/L	lb/day			
u. Molybdenum, Total (7439-98-7)	☐	☒												
v. Manganese, Total (7439-96-5)	☒	☐	0.739	139					1	mg/L	lb/day			
w. Tin, Total (7440-31-5)	☐	☒												
x. Titanium, Total (7440-32-6)	☒	☐	<0.005	<0.942					1	mg/L	lb/day			

CONTINUE ON PAGE V-3

CONTINUED FROM PAGE 3 OF FORM 2-C

EPA I.D. NUMBER *(copy from Item 1 of Form 1)*	OUTFALL NUMBER
ALD004003380	*001*

PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a *(secondary industries, nonprocess wastewater outfalls, and non-required GC/MS fractions)*, mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant. If you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table *(all 7 pages)* for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. *(if available)*	2. MARK 'X'			2. EFFLUENT							3. UNITS *(specify if blank)*		4. INTAKE *(optional)*		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSIS	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
METALS, CYANIDE, AND TOTAL PHENOLS															
1m. Antimony, Total (7440-36-0)	☒	☐	☐	*< 0.005*	*<0.942*					*1*	*mg/L*	*lb/day*			
2M. Arsenic, Total (7440-38-2)	☒	☐	☐	*< 0.005*	*<0.942*					*1*	*mg/L*	*lb/day*			
3M. Beryllium, Total (7440-41-7)	☒	☐	☐	*< 0.005*	*<0.942*					*1*	*mg/L*	*lb/day*			
4M. Cadmium, Total (7440-43-9)	☒	☐	☐	*< 0.005*	*<0.942*					*1*	*mg/L*	*lb/day*			
5M Chromium, Total (7440-47-3)	☒	☐	☐	*< 0.005*	*<0.942*					*1*	*mg/L*	*lb/day*			
6M Copper, Total (7440-50-8)	☒	☐	☐	*< 0.005*	*<0.942*					*1*	*mg/L*	*lb/day*			
7M Lead, Total (7439-92-1)	☒	☐	☐	*0.005*	*0.942*					*1*	*mg/L*	*lb/day*			
8M Mercury, Total (7439-97-6)	☒	☐	☐	*< 0.001*	*<0.188*					*1*	*mg/L*	*lb/day*			
9M Nickel, Total (7440-02-0)	☒	☐	☐	*< 0.005*	*<0.942*					*1*	*mg/L*	*lb/day*			
10M Selenium, Total (7782-49-2)	☒	☐	☐	*< 0.005*	*<0.942*					*1*	*mg/L*	*lb/day*			
11M Silver, Total (7440-22-4)	☒	☐	☐	*< 0.005*	*<0.942*					*1*	*mg/L*	*lb/day*			
12M Thallium, Total (7440-28-0)	☒	☐	☐	*< 0.005*	*<0.942*					*1*	*mg/L*	*lb/day*			
13M Zinc, Total (7440-66-6)	☒	☐	☐	*0.041*	*7.73*					*1*	*mg/L*	*lb/day*			
14M Cyanide, Total (57-12-5)	☒	☐	☐	*< 0.01*	*<1.88*					*1*	*mg/L*	*lb/day*			
15M Phenols, Total	☒	☐	☐	*0.788*	*148*					*1*	*mg/L*	*lb/day*			
DIOXIN															
2,3,7,8-Tetrachlorodibenzo-P-Dioxin (1764--01-6)	☒	☐	☐	DESCRIBE RESULTS *0 ppq*											

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NO. *(if available)*	2. MARK 'X'			2. EFFLUENT							3. UNITS *(specify if blank)*		4. INTAKE *(optional)*		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSIS	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS - VOLATILE COMPOUNDS															
1V. Acrolein (107-02-8)	☐	☐	☒												
2V Acrylonitrile (107-13-1)	☐	☐	☒												
3V Benzene (71-43-2)	☒	☐	☐	*< 1.0*	*< 0.19*					*1*	*ug/L*	*lb/day*			
4V Bis (Chloromethyl) Ether (542-88-1)	☐	☐	☒												
5V Bromoform (75-25-2)	☒	☐	☐	*< 1.0*	*< 0.19*					*1*	*ug/L*	*lb/day*			
6V Carbon Tetrachloride (56-23-5)	☒	☐	☐	*< 1.0*	*< 0.19*					*1*	*ug/L*	*lb/day*			
7V Chlorobenzene (108-90-7)	☒	☐	☐	*< 1.0*	*< 0.19*					*1*	*ug/L*	*lb/day*			
8V Chlorodibromomethane (124-48-1)	☒	☐	☐	*< 1.0*	*< 0.19*					*1*	*ug/L*	*lb/day*			
9V Chloroethane (75-00-3)	☒	☐	☐	*< 1.0*	*< 0.19*					*1*	*ug/L*	*lb/day*			
10V 2-Chloroethylvinyl Ether (110-75-8)	☐	☐	☒												
11V Chloroform (67-66-3)	☒	☐	☐	*< 1.0*	*< 0.19*					*1*	*ug/L*	*lb/day*			
12V Dichlorobromomethane (75-71-8)	☒	☐	☐	*< 1.0*	*< 0.19*					*1*	*ug/L*	*lb/day*			
13V Dichlorodifluoromethane (75-71-8)	☒	☐	☐	*< 1.0*	*< 0.19*					*1*	*ug/L*	*lb/day*			
14V 1,1-Dichloroethane (75-34-3)	☒	☐	☐	*< 1.0*	*< 0.19*					*1*	*ug/L*	*lb/day*			
15V 1,2-Dichloroethane (107-06-2)	☒	☐	☐	*< 1.0*	*< 0.19*					*1*	*ug/L*	*lb/day*			
16V 1,1-Dichloroethylene (75335-4)	☒	☐	☐	*< 1.0*	*< 0.19*					*1*	*ug/L*	*lb/day*			
17V 1,2-Dichloropropane (78-87-5)	☒	☐	☐	*< 1.0*	*< 0.19*					*1*	*ug/L*	*lb/day*			
18V 1,3-Dichloropropylene (542-76-6)	☒	☐	☐	*< 1.0*	*< 0.19*					*1*	*ug/L*	*lb/day*			
19V Ethylbenzene (100-41-4)	☒	☐	☐	*< 1.0*	*< 0.19*					*1*	*ug/L*	*lb/day*			
20V Methyl Bromide (74-83-9)	☒	☐	☐	*< 1.0*	*< 0.19*					*1*	*ug/L*	*lb/day*			
21V Methyl Chloride (74-87-3)	☒	☐	☐	*< 1.0*	*< 0.19*					*1*	*ug/L*	*lb/day*			

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EPA I.D. NUMBER *(copy from Item 1 of Form 1)*: ALD004003380

OUTFALL NUMBER: 001

1. POLLUTANT AND CAS NO. *(if available)*	2. MARK 'X'			2. EFFLUENT							3. UNITS *(specify if blank)*		4. INTAKE *(optional)*		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSIS	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS - VOLATILE COMPOUNDS *(continued)*															
22 V Methylene Chloride (75-09-2)	☒	☐	☐	< 5.0	< 0.94					1	ug/L	lb/day			
23V 1,1,2,2-Tetra-Chloroethane (79-34-5)	☒	☐	☐	< 1.0	< 0.19					1	ug/L	lb/day			
24V Tetrachloro-ethylene (127-18-4)	☒	☐	☐	< 1.0	< 0.19					1	ug/L	lb/day			
25V Toluene (108-88-3)	☒	☐	☐	< 1.0	< 0.19					1	ug/L	lb/day			
26V 1,2-Trans-Dichloroethylene (156-60-5)	☒	☐	☐	< 1.0	< 0.19					1	ug/L	lb/day			
27V 1,1,1-Tri-chloroethane (71-55-6)	☒	☐	☐	< 1.0	< 0.19					1	ug/L	lb/day			
28V 1,1,2-Tri-chloroethane (79-00-5)	☒	☐	☐	< 1.0	< 0.19					1	ug/L	lb/day			
29V Trichloro-ethylene (79-01-6)	☐	☐	☒												
30V Trichloro-fluoromethane (75-69-4)	☒	☐	☐	< 2.0	< 0.38					1	ug/L	lb/day			
31V Vinyl Chloride (75-01-4)	☒	☐	☐	< 1.0	< 0.19					1	ug/L	lb/day			
GC/MS FRACTION - ACID COMPOUNDS															
1A 2-Chlorophenol (95-57-8)	☒	☐	☐	< 10.0	< 1.88					1	ug/L	lb/day			
2A 2,4-Dichloro-phenol (120-83-2)	☒	☐	☐	< 10.0	< 1.88					1	ug/L	lb/day			
3A 2,4-Dimethyl-phenol (105-67-9)	☒	☐	☐	< 10.0	< 1.88					1	ug/L	lb/day			
4A 4,6-Dinitro-O-cresol (534-52-1)	☒	☐	☐	< 25.0	< 4.71					1	ug/L	lb/day			
5A 2,4-Dinitro-phenol (51-28-5)	☒	☐	☐	< 25.0	< 4.71					1	ug/L	lb/day			
6A 2-Nitro-phenol (88-75-5)	☒	☐	☐	< 10.0	< 1.88					1	ug/L	lb/day			
7A 4-Ntro-phenol (100-02-7)	☒	☐	☐	< 10.0	< 1.88					1	ug/L	lb/day			
8A P-Chloro-M-Cresol (59-50-7)	☒	☐	☐	< 10.0	< 1.88					1	ug/L	lb/day			
9A Penta-chlorophenol (87-86-5)	☒	☐	☐	< 10.0	< 1.88					1	ug/L	lb/day			
10A Phenol (10/-95-2)	☒	☐	☐	< 10.0	< 1.88					1	ug/L	lb/day			
11A 2,4,6-Tri-chlorophenol (88-06-2)	☒	☐	☐	< 10.0	< 1.88					1	ug/L	lb/day			

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NO. *(if available)*	2. MARK 'X'			2. EFFLUENT							3. UNITS *(specify if blank)*		4. INTAKE *(optional)*		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSIS	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS															
1B Acenphthene (83-32-9)	☒	☐	☐	< 10.0	< 1.88					1	ug/L	lb/day			
2B Acenaphtylene (208-96-8)	☒	☐	☐	< 10.0	< 1.88					1	ug/L	lb/day			
3B Anthracene (120-12-7)	☒	☐	☐	< 10.0	< 1.88					1	ug/L	lb/day			
4B Benzidine (92-87-5)	☒	☐	☐	< 100	< 18.8					1	ug/L	lb/day			
5B Benzo (a) Anthracene (56-55-3)	☒	☐	☐	< 10.0	< 1.88					1	ug/L	lb/day			
6B Benzo (a) Pyrene (50-32-8)	☒	☐	☐	< 10.0	< 1.88					1	ug/L	lb/day			
7B 3,4-Benzofluoranthene (205-99-2)	☒	☐	☐	< 10.0	< 1.88					1	ug/L	lb/day			
8B Benzo *(ghi)* Perylene (191-24-2)	☒	☐	☐	< 10.0	< 1.88					1	ug/L	lb/day			
9B Benzo *(k)* Fluoranthene (207-08-9)	☒	☐	☐	< 10.0	< 1.88					1	ug/L	lb/day			
10B Bis *(2-Chloroethoxy)* Methane (111-91-1)	☒	☐	☐	< 10.0	< 1.88					1	ug/L	lb/day			
11B Bis *(2-Chloroethyl)* Ether (111-44-4)	☒	☐	☐	< 10.0	< 1.88					1	ug/L	lb/day			
12B Bis *(2-Chloroisepropyl)* Ether (102-60-1	☒	☐	☐	< 10.0	< 1.88					1	ug/L	lb/day			
13B Bis*(2-Ethylhexyl)* Phthalate (117-81-7)	☒	☐	☐	< 10.0	< 1.88					1	ug/L	lb/day			
14 B 4-Bromophenyl Phenyl Ether (101-55-3)	☐	☐	☒												
15B Butyl Benzyl Phthalate (85-68-7)	☒	☐	☐	< 10.0	< 1.88					1	ug/L	lb/day			
16B 2-Chloronaphthalene (91-68-7)	☒	☐	☐	< 10.0	< 1.88					1	ug/L	lb/day			
17B 4-Chlorophenyl Phenyl Ether (7005-72-3)	☒	☐	☐	< 10.0	< 1.88					1	ug/L	lb/day			
18B Chrysene (218-01-9)	☒	☐	☐	< 10.0	< 1.88					1	ug/L	lb/day			
19B Dibenzo *(a,h)* Anthracene (53-70-3)	☒	☐	☐	< 10.0	< 1.88					1	ug/L	lb/day			
20B 1,2-Dichlorobenzene (95-50-1)	☒	☐	☐	< 10.0	< 1.88					1	ug/L	lb/day			
21B 1,3-Dichlorobenzene (541-73-1)	☒	☐	☐	< 10.0	< 1.88					1	ug/L	lb/day			

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EPA I.D. NUMBER *(copy from Item 1 of Form 1)*: ALD004003380

OUTFALL NUMBER: 001

1. POLLUTANT AND CAS NO. *(if available)*	2. MARK 'X'			2. EFFLUENT							3. UNITS *(specify if blank)*		4. INTAKE *(optional)*		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSIS	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS - BASE/NEUTRAL COMPOUNDS *(continued)*															
22B 1,4-Dichlorobenzene (106-46-7)	☒	☐	☐	< 10.0	< 1.88					1	ug/L	lb/day			
23B 3,3'-Dichlorobenzidine (91-94-1)	☒	☐	☐	< 10.0	< 1.88					1	ug/L	lb/day			
24B Diethyl Phthalate (84-66-2)	☒	☐	☐	< 10.0	< 1.88					1	ug/L	lb/day			
25B Dimethyl Phthalate (131-11-3)	☒	☐	☐	< 10.0	< 1.88					1	ug/L	lb/day			
26B Di-N-Butyl Phthalate (131-11-3)	☒	☐	☐	< 10.0	< 1.88					1	ug/L	lb/day			
27B 2,4-Dinitrotoluene (121-14-2)	☒	☐	☐	< 10.0	< 1.88					1	ug/L	lb/day			
28B 2,6-Dinitrotoluene (606-20-2)	☒	☐	☐	< 10.0	< 1.88					1	ug/L	lb/day			
29B Di-N-Octyl Phthalate (117-84-0)	☒	☐	☐	< 10.0	< 1.88					1	ug/L	lb/day			
30B 1,2-Diphenylhydrazine *(as Azo-benzene)* (122-66-7)	☒	☐	☐	< 10.0	< 1.88					1	ug/L	lb/day			
31B Fluoranthene (206-44-0)	☒	☐	☐	< 10.0	< 1.88					1	ug/L	lb/day			
32B Fluorene (86-73-7)	☒	☐	☐	< 10.0	< 1.88					1	ug/L	lb/day			
33B Hexachlorobenzene (118-74-1)	☒	☐	☐	< 10.0	< 1.88					1	ug/L	lb/day			
34B Hexachlorobutadiene (87-68-3)	☒	☐	☐	< 10.0	< 1.88					1	ug/L	lb/day			
35B Hexachlorocyclopentadiene (77-47-4)	☒	☐	☐	< 10.0	< 1.88					1	ug/L	lb/day			
36B Hexachloroethane (67-72-1)	☒	☐	☐	< 10.0	< 1.88					1	ug/L	lb/day			
37B Indeno *(1,2,3-cd)* Pyrene (193-39-5)	☒	☐	☐	< 10.0	< 1.88					1	ug/L	lb/day			
38B Isophorone (78-59-1)	☒	☐	☐	< 10.0	< 1.88					1	ug/L	lb/day			
39B Napthalene (91-20-3)	☒	☐	☐	< 10.0	< 1.88					1	ug/L	lb/day			
40B Nitrobenzene (98-95-3)	☒	☐	☐	< 10.0	< 1.88					1	ug/L	lb/day			
41B N-Nitrosodimethylamine (62-75-9)	☒	☐	☐	< 10.0	< 1.88					1	ug/L	lb/day			
42B N-Nitrosdi-N-Propylamine (621-64-7)	☒	☐	☐	< 10.0	< 1.88					1	ug/L	lb/day			

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1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X'			2. EFFLUENT						d. NO. OF ANALYSIS	3. UNITS (specify if blank)		4. INTAKE (optional)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)			a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)															
43B N-Nitrosodiphenylamine (86-30-6)	☒	☐	☐	< 10.0	< 1.88					1	ug/L	lb/day			
44B Phenanthrene (85-01-/	☒	☐	☐	< 10.0	< 1.88					1	ug/L	lb/day			
45B Pyrene (129-00-0)	☒	☐	☐	< 10.0	< 1.88					1	ug/L	lb/day			
46B 1,2,4-Trichlorobenzene (120-82-1)	☒	☐	☐	< 10.0	< 1.88					1	ug/L	lb/day			
GC/MS FRACTION - PESTICIDES															
1P Aldrin (309-00-2)	☒	☐	☐	< 0.026	<0.005					1	ug/L	lb/day			
2P α-Bhc (319-85-7)	☒	☐	☐	< 0.026	<0.005					1	ug/L	lb/day			
3P β-Bhc (319-85-7)	☒	☐	☐	< 0.026	<0.005					1	ug/L	lb/day			
4P γ-BHC (58-89-9)	☒	☐	☐	< 0.026	<0.005					1	ug/L	lb/day			
5P δ-BHC (319-86-8)	☒	☐	☐	< 0.026	<0.005					1	ug/L	lb/day			
6P Chlordane (57-74-9)	☒	☐	☐	< 0.026	<0.005					1	ug/L	lb/day			
7P 4,4'-DDT (50-29-3)	☒	☐	☐	< 0.026	<0.005					1	ug/L	lb/day			
8P 4,4'-DDE (72-55-9)	☒	☐	☐	< 0.026	<0.005					1	ug/L	lb/day			
9P 4,4'-DDD (72-54-8)	☒	☐	☐	< 0.026	<0.005					1	ug/L	lb/day			
10P Dieldrin (60-57-1)	☒	☐	☐	< 0.026	<0.005					1	ug/L	lb/day			
11P α-Endosulfan (115-29-7)	☒	☐	☐	< 0.026	<0.005					1	ug/L	lb/day			
12P β-Endosulfan (115-29-7	☒	☐	☐	< 0.026	<0.005					1	ug/L	lb/day			
13P Endosulfan Sulfate (1031-07-8)	☒	☐	☐	< 0.026	<0.005					1	ug/L	lb/day			
14P Endrin (72-20-8)	☒	☐	☐	< 0.026	<0.005					1	ug/L	lb/day			
15P Endrin Aldehyde (7421-93-4)	☒	☐	☐	< 0.026	<0.005					1	ug/L	lb/day			
16P Heptachlor (76-44-8)	☒	☐	☐	< 0.026	<0.005					1	ug/L	lb/day			

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EPA I.D. NUMBER *(copy from Item 1 of Form 1)*	OUTFALL NUMBER
ALD004003380	*001*

1. POLLUTANT AND CAS NO. *(if available)*	2. MARK 'X'			2. EFFLUENT							3. UNITS *(specify if blank)*		4. INTAKE *(optional)*		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSIS	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS - PESTICIDES *(continued)*															
17P Heptachlor Epoxide (1024-57-3)	☒	☐	☐	*< 0.026*	*<0.005*					*1*	*ug/L*	*lb/day*			
18P PCB-1242 (53469-21-9)	☒	☐	☐	*< 0.515*	*<0.097*					*1*	*ug/L*	*lb/day*			
19P PCB-1254 (11097-69-1)	☒	☐	☐	*< 0.515*	*<0.097*					*1*	*ug/L*	*lb/day*			
20P PCB-1221 (11104-28-2)	☒	☐	☐	*< 0.515*	*<0.097*					*1*	*ug/L*	*lb/day*			
21P PCB-1232 (11141-16-5)	☒	☐	☐	*< 0.515*	*<0.097*					*1*	*ug/L*	*lb/day*			
22P PCB-1248 (12672-29-6)	☒	☐	☐	*< 0.515*	*<0.097*					*1*	*ug/L*	*lb/day*			
23P PCB-1260 (11096-82-5)	☒	☐	☐	*< 0.515*	*<0.097*					*1*	*ug/L*	*lb/day*			
24P PCB-1016 (12674-11-2)	☒	☐	☐	*< 0.515*	*<0.097*					*1*	*ug/L*	*lb/day*			
25P Toxaphene (8001-35-2)	☒	☐	☐	*< 2.06*	*<0.388*					*1*	*ug/L*	*lb/day*			

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets *(use the same format)* instead of completing these pages. SEE INSTRUCTIONS.

EPA I.D. NUMBER *(copy from Item 1 of Form 1)*
ALD004003380

V. INTAKE AND EFFLUENT CHARACTERISTICS *(continued from page 3 of Form 2-C)* — **DSN 005**

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE *(if available)* (2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCENTRATION	c. LONG TERM AVRG. VALUE *(if available)* (2) MASS	d. NO. OF ANALYSIS	3. UNITS *(specify if blank)* a. CONCEN-TRATION	3. UNITS b. MASS	4. INTAKE *(optional)* a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
a. Biochemical Oxygen Demand *(BOD)*	56	1,854	18.6	469	11.6	181	424	mg/L	lb/day			
b. Chemical Oxygen Demand *(COD)*	106	13,256	106	3,181	106	1,679	1	mg/L	lb/day			
c. Total Organic Carbon *(TOC)*	60.0	7,503	60.0	1,801	60.0	950	1	mg/L	lb/day			
d. Total Suspended Solids *(TSS)*	239	22,308	67.3	3,018	31.2	842	190	mg/L	lb/day			
e. Ammonia *(as N)*	1.15	144	1.15	34.5	1.15	18.2	1	mg/L	lb/day			
f. Flow	Value 15.0		Value 3.6		Value 1.9		424		MGD	Value		
g. Temperature *(winter)*	Value NA		Value NA		Value NA		0	°C		Value		
h. Temperature *(summer)*	Value NA		Value NA		Value NA		0	°C		Value		
i. pH	Minimum 6.7	Maximum 8.1	Minimum 7.1	Maximum 8.1			35	STANDARD UNTIS				

PART B - Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitation guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. *(if available)*	2. MARK 'X' a. BELIEVED PRESENT	2. MARK 'X' b. BELIEVED ABSENT	2. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE *(if available)* (2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCENTRATION	c. LONG TERM AVRG. VALUE *(if available)* (2) MASS	d. NO. OF ANALYSIS	3. UNITS *(specify if blank)* a. CONCEN-TRATION	3. UNITS b. MASS	4. INTAKE *(optional)* a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
a. Bromide (24959-67-9)	☒	☐	< 10.0	< 1,250					1	mg/L	lb/day			
b. Chlorine, Total Residual	☐	☒												
c. Color	☒	☐	1,214						1	PCU				
d. Fecal Coliform	☐	☒												
e. Fluoride (16984-48-8)	☐	☒												
f. Nitrate-Nitrite *(as N)*	☒	☐	0.55	68.8					1	mg/L	lb/day			

ITEM V-B CONTINUED FROM FRONT

1. POLLUTANT AND CAS NO. *(if available)*	2. MARK 'X'		2. EFFLUENT						d. NO. OF ANALYSIS	3. UNITS *(specify if blank)*		4. INTAKE *(optional)*		
	a. BELIEVED PRESENT	b. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*			a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
g. Nitrogen, Total Organic *(as N)*	☒	☐	0.43	54					1	mg/L	lb/day			
h. Oil and Grease	☒	☐	3.4	425	3.4	102	1.2	19	14	mg/L	lb/day			
i. Phosphorus *(as P)*, Total (7723-14-0)	☒	☐	3.04	380					1	mg/L	lb/day			
j. Radioactivity														
(1) Alpha, Total	☐	☒												
(2) Beta, Total	☐	☒												
(3) Radium, Total	☐	☒												
(4) Radium 226, Total	☐	☒												
k. Sulfate *(as SO_4)* (14808-79-8)	☒	☐	98.45	12,312					1	mg/L	lb/day			
l. Sulfide (as S)	☐	☒												
m. Sulfite *(as SO_3)* (14265-45-3)	☐	☒												
n. Surfactants	☒	☐	< 0.20	< 25.0					1	mg/L	lb/day			
o. Aluminum, Total (7429-90-5)	☒	☐	1.143	143					1	mg/L	lb/day			
p. Barium, Total (7440-39-3)	☒	☐	0.043	5.38					1	mg/L	lb/day			
q. Boron, Total (7440-42-8)	☐	☒												
r. Cobalt, Total (7440-48-4)	☐	☒												
s. Iron, Total (7439-89-4)	☒	☐	0.892	112					1	mg/L	lb/day			
t. Magnesium, Total (7439-95-4)	☒	☐	3.040	380					1	mg/L	lb/day			
u. Molybdenum, Total (7439-98-7)	☐	☒												
v. Manganese, Total (7439-96-5)	☒	☐	0.187	23.4					1	mg/L	lb/day			
w. Tin, Total (7440-31-5)	☐	☒												
x. Titanium, Total (7440-32-6)	☒	☐	<0.005	<0.625					1	mg/L	lb/day			

CONTINUE ON PAGE V-3

CONTINUED FROM PAGE 3 OF FORM 2-C

EPA I.D. NUMBER *(copy from Item 1 of Form 1)*	OUTFALL NUMBER
ALD004003380	*005*

PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a *(secondary industries, nonprocess wastewater outfalls, and non-required GC/MS fractions)*, mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant. If you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table *(all 7 pages)* for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. *(if available)*	2. MARK 'X'			2. EFFLUENT							3. UNITS *(specify if blank)*		4. INTAKE *(optional)*		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSIS	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
METALS, CYANIDE, AND TOTAL PHENOLS															
1m. Antimony, Total (7440-36-0)	☒	☐	☐	*< 0.005*	*<0.625*					*1*	*mg/L*	*lb/day*			
2M. Arsenic, Total (7440-38-2)	☒	☐	☐	*0.076*	*9.50*					*1*	*mg/L*	*lb/day*			
3M. Beryllium, Total (7440-41-7)	☒	☐	☐	*< 0.005*	*<0.625*					*1*	*mg/L*	*lb/day*			
4M. Cadmium, Total (7440-43-9)	☒	☐	☐	*< 0.005*	*<0.625*					*1*	*mg/L*	*lb/day*			
5M Chromium, Total (7440-47-3)	☒	☐	☐	*< 0.005*	*<0.625*					*1*	*mg/L*	*lb/day*			
6M Copper, Total (7440-50-8)	☒	☐	☐	*0.006*	*0.75*					*1*	*mg/L*	*lb/day*			
7M Lead, Total (7439-92-1)	☒	☐	☐	*< 0.005*	*<0.625*					*1*	*mg/L*	*lb/day*			
8M Mercury, Total (7439-97-6)	☒	☐	☐	*< 0.001*	*<0.125*					*1*	*mg/L*	*lb/day*			
9M Nickel, Total (7440-02-0)	☒	☐	☐	*< 0.005*	*<0.625*					*1*	*mg/L*	*lb/day*			
10M Selenium, Total (7782-49-2)	☒	☐	☐	*< 0.005*	*<0.625*					*1*	*mg/L*	*lb/day*			
11M Silver, Total (7440-22-4)	☒	☐	☐	*< 0.005*	*<0.625*					*1*	*mg/L*	*lb/day*			
12M Thallium, Total (7440-28-0)	☒	☐	☐	*< 0.005*	*<0.625*					*1*	*mg/L*	*lb/day*			
13M Zinc, Total (7440-66-6)	☒	☐	☐	*0.012*	*1.50*					*1*	*mg/L*	*lb/day*			
14M Cyanide, Total (57-12-5)	☒	☐	☐	*< 0.01*	*< 1.25*					*1*	*mg/L*	*lb/day*			
15M Phenols, Total	☒	☐	☐	*0.0546*	*6.83*					*1*	*mg/L*	*lb/day*			
DIOXIN															
2,3,7,8-Tetrachlorodibenzo-P-Dioxin (1764--01-6)	☐	☐	☒	DESCRIBE RESULTS *Not Associated with Potential TCDD Generating Process*											

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1. POLLUTANT AND CAS NO. *(if available)*	2. MARK 'X'			2. EFFLUENT							3. UNITS *(specify if blank)*		4. INTAKE *(optional)*		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSIS	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS - VOLATILE COMPOUNDS															
1V. Acrolein (107-02-8)	☐	☐	☒												
2V Acrylonitrile (107-13-1)	☐	☐	☒												
3V Benzene (71-43-2)	☒	☐	☐	< 1.0	<0.125					1	ug/L	lb/day			
4V Bis (Chloromethyl) Ether (542-88-1)	☐	☐	☒												
5V Bromoform (75-25-2)	☒	☐	☐	< 1.0	<0.125					1	ug/L	lb/day			
6V Carbon Tetrachloride (56-23-5)	☒	☐	☐	< 1.0	<0.125					1	ug/L	lb/day			
7V Chlorobenzene (108-90-7)	☒	☐	☐	< 1.0	<0.125					1	ug/L	lb/day			
8V Chlorodibromomethane (124-48-1)	☒	☐	☐	< 1.0	<0.125					1	ug/L	lb/day			
9V Chloroethane (75-00-3)	☒	☐	☐	< 1.0	<0.125					1	ug/L	lb/day			
10V 2-Chloroethylvinyl Ether (110-75-8)	☐	☐	☒												
11V Chloroform (67-66-3)	☒	☐	☐	< 1.0	<0.125					1	ug/L	lb/day			
12V Dichlorobromomethane (75-71-8)	☒	☐	☐	< 1.0	<0.125					1	ug/L	lb/day			
13V Dichlorodifluoromethane (75-71-8)	☒	☐	☐	< 1.0	<0.125					1	ug/L	lb/day			
14V 1,1-Dichloroethane (75-34-3)	☒	☐	☐	< 1.0	<0.125					1	ug/L	lb/day			
15V 1,2-Dichloroethane (107-06-2)	☒	☐	☐	< 1.0	<0.125					1	ug/L	lb/day			
16V 1,1-Dichloroethylene (75335-4)	☒	☐	☐	< 1.0	<0.125					1	ug/L	lb/day			
17V 1,2-Dichloropropane (78-87-5)	☒	☐	☐	< 1.0	<0.125					1	ug/L	lb/day			
18V 1,3-Dichloropropylene (542-76-6)	☒	☐	☐	< 1.0	<0.125					1	ug/L	lb/day			
19V Ethylbenzene (100-41-4)	☒	☐	☐	< 1.0	<0.125					1	ug/L	lb/day			
20V Methyl Bromide (74-83-9)	☒	☐	☐	< 1.0	<0.125					1	ug/L	lb/day			
21V Methyl Chloride (74-87-3)	☒	☐	☐	< 1.0	<0.125					1	ug/L	lb/day			

CONTINUE ON PAGE V-5

CONTINUED FROM PAGE V-4

EPA I.D. NUMBER *(copy from Item 1 of Form 1)*	OUTFALL NUMBER
ALD004003380	*005*

1. POLLUTANT AND CAS NO. *(if available)*	2. MARK 'X'			2. EFFLUENT							3. UNITS *(specify if blank)*		4. INTAKE *(optional)*		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSIS	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS - VOLATILE COMPOUNDS *(continued)*															
22 V Methylene Chloride (75-09-2)	☒	☐	☐	*< 5.0*	*<0.625*					*1*	*ug/L*	*lb/day*			
23V 1,1,2,2-Tetra-Chloroethane (79-34-5)	☒	☐	☐	*< 1.0*	*<0.125*					*1*	*ug/L*	*lb/day*			
24V Tetrachloro-ethylene (127-18-4)	☒	☐	☐	*< 1.0*	*<0.125*					*1*	*ug/L*	*lb/day*			
25V Toluene (108-88-3)	☒	☐	☐	*< 1.0*	*<0.125*					*1*	*ug/L*	*lb/day*			
26V 1,2-Trans-Dichloroethylene (156-60-5)	☒	☐	☐	*< 1.0*	*<0.125*					*1*	*ug/L*	*lb/day*			
27V 1,1,1-Tri-chloroethane (71-55-6)	☒	☐	☐	*< 1.0*	*<0.125*					*1*	*ug/L*	*lb/day*			
28V 1,1,2-Tri-chloroethane (79-00-5)	☒	☐	☐	*< 1.0*	*<0.125*					*1*	*ug/L*	*lb/day*			
29V Trichloro-ethylene (79-01-6)	☐	☐	☒												
30V Trichloro-fluoromethane (75-69-4)	☒	☐	☐	*< 2.0*	*<0.250*					*1*	*ug/L*	*lb/day*			
31V Vinyl Chloride (75-01-4)	☒	☐	☐	*< 1.0*	*<0.125*					*1*	*ug/L*	*lb/day*			
GC/MS FRACTION - ACID COMPOUNDS															
1A 2-Chlorophenol (95-57-8)	☒	☐	☐	*< 9.35*	*< 1.17*					*1*	*ug/L*	*lb/day*			
2A 2,4-Dichloro-phenol (120-83-2)	☒	☐	☐	*< 9.35*	*< 1.17*					*1*	*ug/L*	*lb/day*			
3A 2,4-Dimethyl-phenol (105-67-9)	☒	☐	☐	*< 9.35*	*< 1.17*					*1*	*ug/L*	*lb/day*			
4A 4,6-Dinitro-O-cresol (534-52-1)	☒	☐	☐	*< 23.4*	*< 2.93*					*1*	*ug/L*	*lb/day*			
5A 2,4-Dinitro-phenol (51-28-5)	☒	☐	☐	*< 23.4*	*< 2.93*					*1*	*ug/L*	*lb/day*			
6A 2-Nitro-phenol (88-75-5)	☒	☐	☐	*< 9.35*	*< 1.17*					*1*	*ug/L*	*lb/day*			
7A 4-Ntro-phenol (100-02-7)	☒	☐	☐	*< 9.35*	*< 1.17*					*1*	*ug/L*	*lb/day*			
8A P-Chloro-M-Cresol (59-50-7)	☒	☐	☐	*< 9.35*	*< 1.17*					*1*	*ug/L*	*lb/day*			
9A Penta-chlorophenol (87-86-5)	☒	☐	☐	*< 9.35*	*< 1.17*					*1*	*ug/L*	*lb/day*			
10A Phenol (10/-95-2)	☒	☐	☐	*< 9.35*	*< 1.17*					*1*	*ug/L*	*lb/day*			
11A 2,4,6-Tri-chlorophenol (88-06-2)	☒	☐	☐	*< 9.35*	*< 1.17*					*1*	*ug/L*	*lb/day*			

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1. POLLUTANT AND CAS NO. *(if available)*	2. MARK 'X'			2. EFFLUENT							3. UNITS *(specify if blank)*		4. INTAKE *(optional)*		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSIS	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS															
1B Acenphthene (83-32-9)	☒	☐	☐	< 9.35	< 1.17					1	ug/L	lb/day			
2B Acenaphtylene (208-96-8)	☒	☐	☐	< 9.35	< 1.17					1	ug/L	lb/day			
3B Anthracene (120-12-7)	☒	☐	☐	< 9.35	< 1.17					1	ug/L	lb/day			
4B Benzidine (92-87-5)	☒	☐	☐	< 93.5	< 11.7					1	ug/L	lb/day			
5B Benzo (a) Anthracene (56-55-3)	☒	☐	☐	< 9.35	< 1.17					1	ug/L	lb/day			
6B Benzo (a) Pyrene (50-32-8)	☒	☐	☐	< 9.35	< 1.17					1	ug/L	lb/day			
7B 3,4-Benzofluoranthene (205-99-2)	☒	☐	☐	< 9.35	< 1.17					1	ug/L	lb/day			
8B Benzo *(ghi)* Perylene (191-24-2)	☒	☐	☐	< 9.35	< 1.17					1	ug/L	lb/day			
9B Benzo *(k)* Fluoranthene (207-08-9)	☒	☐	☐	< 9.35	< 1.17					1	ug/L	lb/day			
10B Bis *(2-Chloroethoxy)* Methane (111-91-1)	☒	☐	☐	< 9.35	< 1.17					1	ug/L	lb/day			
11B Bis *(2-Chloroethyl)* Ether (111-44-4)	☒	☐	☐	< 9.35	< 1.17					1	ug/L	lb/day			
12B Bis *(2-Chloroisepropyl)* Ether (102-60-1	☒	☐	☐	< 9.35	< 1.17					1	ug/L	lb/day			
13B Bis*(2-Ethylhexyl)* Phthalate (117-81-7)	☒	☐	☐	< 9.35	< 1.17					1	ug/L	lb/day			
14 B 4-Bromophenyl Phenyl Ether (101-55-3)	☐	☐	☒												
15B Butyl Benzyl Phthalate (85-68-7)	☒	☐	☐	< 9.35	< 1.17					1	ug/L	lb/day			
16B 2-Chloronaphthalene (91-68-7)	☒	☐	☐	< 9.35	< 1.17					1	ug/L	lb/day			
17B 4-Chlorophenyl Phenyl Ether (7005-72-3)	☒	☐	☐	< 9.35	< 1.17					1	ug/L	lb/day			
18B Chrysene (218-01-9)	☒	☐	☐	< 9.35	< 1.17					1	ug/L	lb/day			
19B Dibenzo *(a,h)* Anthracene (53-70-3)	☒	☐	☐	< 9.35	< 1.17					1	ug/L	lb/day			
20B 1,2-Dichlorobenzene (95-50-1)	☒	☐	☐	< 9.35	< 1.17					1	ug/L	lb/day			
21B 1,3-Dichlorobenzene (541-73-1)	☒	☐	☐	< 9.35	< 1.17					1	ug/L	lb/day			

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EPA I.D. NUMBER *(copy from Item 1 of Form 1)*: ALD004003380

OUTFALL NUMBER: 005

1. POLLUTANT AND CAS NO. *(if available)*	2. MARK 'X'			2. EFFLUENT							3. UNITS *(specify if blank)*		4. INTAKE *(optional)*		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSIS	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS - BASE/NEUTRAL COMPOUNDS *(continued)*															
22B 1,4-Dichlorobenzene (106-46-7)	☒	☐	☐	< 9.35	< 1.17					1	ug/L	lb/day			
23B 3,3'-Dichlorobenzidine (91-94-1)	☒	☐	☐	< 9.35	< 1.17					1	ug/L	lb/day			
24B Diethyl Phthalate (84-66-2)	☒	☐	☐	< 9.35	< 1.17					1	ug/L	lb/day			
25B Dimethyl Phthalate (131-11-3)	☒	☐	☐	< 9.35	< 1.17					1	ug/L	lb/day			
26B Di-N-Butyl Phthalate (131-11-3)	☒	☐	☐	< 9.35	< 1.17					1	ug/L	lb/day			
27B 2,4-Dinitrotoluene (121-14-2)	☒	☐	☐	< 9.35	< 1.17					1	ug/L	lb/day			
28B 2,6-Dinitrotoluene (606-20-2)	☒	☐	☐	< 9.35	< 1.17					1	ug/L	lb/day			
29B Di-N-Octyl Phthalate (117-84-0)	☒	☐	☐	< 9.35	< 1.17					1	ug/L	lb/day			
30B 1,2-Diphenylhydrazine *(as Azo-benzene)* (122-66-7)	☒	☐	☐	< 9.35	< 1.17					1	ug/L	lb/day			
31B Fluoranthene (206-44-0)	☒	☐	☐	< 9.35	< 1.17					1	ug/L	lb/day			
32B Fluorene (86-73-7)	☒	☐	☐	< 9.35	< 1.17					1	ug/L	lb/day			
33B Hexachlorobenzene (118-74-1)	☒	☐	☐	< 9.35	< 1.17					1	ug/L	lb/day			
34B Hexachlorobutadiene (87-68-3)	☒	☐	☐	< 9.35	< 1.17					1	ug/L	lb/day			
35B Hexachlorocyclopentadiene (77-47-4)	☒	☐	☐	< 9.35	< 1.17					1	ug/L	lb/day			
36B Hexachloroethane (67-72-1)	☒	☐	☐	< 9.35	< 1.17					1	ug/L	lb/day			
37B Indeno *(1,2,3-cd)* Pyrene (193-39-5)	☒	☐	☐	< 9.35	< 1.17					1	ug/L	lb/day			
38B Isophorone (78-59-1)	☒	☐	☐	< 9.35	< 1.17					1	ug/L	lb/day			
39B Napthalene (91-20-3)	☒	☐	☐	< 9.35	< 1.17					1	ug/L	lb/day			
40B Nitrobenzene (98-95-3)	☒	☐	☐	< 9.35	< 1.17					1	ug/L	lb/day			
41B N-Nitrosodimethylamine (62-75-9)	☒	☐	☐	< 9.35	< 1.17					1	ug/L	lb/day			
42B N-Nitrosdi-N-Propylamine (621-64-7)	☒	☐	☐	< 9.35	< 1.17					1	ug/L	lb/day			

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NO. *(if available)*	2. MARK 'X'			2. EFFLUENT							3. UNITS *(specify if blank)*		4. INTAKE *(optional)*		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSIS	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS *(continued)*															
43B N-Nitrosodiphenylamine (86-30-6)	☒	☐	☐	< 9.35	< 1.17					1	ug/L	lb/day			
44B Phenanthrene (85-01-/	☒	☐	☐	< 9.35	< 1.17					1	ug/L	lb/day			
45B Pyrene (129-00-0)	☒	☐	☐	< 9.35	< 1.17					1	ug/L	lb/day			
46B 1,2,4-Trichlorobenzene (120-82-1)	☒	☐	☐	< 9.35	< 1.17					1	ug/L	lb/day			
GC/MS FRACTION - PESTICIDES															
1P Aldrin (309-00-2)	☐	☐	☒												
2P α-Bhc (319-85-7)	☐	☐	☒												
3P β-Bhc (319-85-7)	☐	☐	☒												
4P γ-BHC (58-89-9)	☐	☐	☒												
5P δ-BHC (319-86-8)	☐	☐	☒												
6P Chlordane (57-74-9)	☐	☐	☒												
7P 4,4'-DDT (50-29-3)	☐	☐	☒												
8P 4,4'-DDE (72-55-9)	☐	☐	☒												
9P 4,4'-DDD (72-54-8)	☐	☐	☒												
10P Dieldrin (60-57-1)	☐	☐	☒												
11P α-Endosulfan (115-29-7)	☐	☐	☒												
12P β-Endosulfan (115-29-7	☐	☐	☒												
13P Endosulfan Sulfate (1031-07-8)	☐	☐	☒												
14P Endrin (72-20-8)	☐	☐	☒												
15P Endrin Aldehyde (7421-93-4)	☐	☐	☒												
16P Heptachlor (76-44-8)	☐	☐	☒												

CONTINUE ON PAGE V-9

CONTINUED FROM PAGE V-6

EPA I.D. NUMBER *(copy from Item 1 of Form 1)*	OUTFALL NUMBER
ALD004003380	*005*

1. POLLUTANT AND CAS NO. *(if available)*	2. MARK 'X'			2. EFFLUENT							3. UNITS *(specify if blank)*		4. INTAKE *(optional)*		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSIS	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS - PESTICIDES *(continued)*															
17P Heptachlor Expxide (1024-57-3)	☐	☐	☒												
18P PCB-1242 (53469-21-9)	☐	☐	☒												
19P PCB-1254 (11097-69-1)	☐	☐	☒												
20P PCB-1221 (11104-28-2)	☐	☐	☒												
21P PCB-1232 (11141-16-5)	☐	☐	☒												
22P PCB-1248 (12672-29-6)	☐	☐	☒												
23P PCB-1260 (11096-82-5)	☐	☐	☒												
24P PCB-1016 (12674-11-2)	☐	☐	☒												
25P Toxaphene (8001-35-2)	☐	☐	☒												

Please print or type in the unshaded areas	EPA ID Number *(copy from item I of Form 1)* **ALD004003380**	Form Approved. OMB No. 2040-0086 Approval expires 5-31-92

Form **2F** NPDES

United States Environmental Protection Agency
Washington, DC 20460

Application for Permit to Discharge Storm Water Discharges Associated with Industrial Activity

Paperwork Reduction Act Notice

Public reporting burden for this application is estimated to average 28.6 hours per application, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate, any other aspect of this collection of information or suggestions for improving this form, including suggestions which may increase or reduce this burden to: Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M St., SW, Washington, DC 20460, or Director, Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

I. Outfall Location

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

A. Outfall Number *(list)*	B. Latitude			C. Longitude			D. Receiving Water *(name)*
001	***32***	***27***	***30***	***87***	***58***	***58***	***Tombigbee River***
005	***32***	***27***	***25***	***87***	***58***	***15***	***Tombigbee River***
006	***32***	***27***	***03***	***87***	***59***	***33***	***Tombigbee River***
007	***32***	***27***	***21***	***87***	***57***	***40***	***Tombigbee River via unnamed tributary***
008	***32***	***27***	***20***	***87***	***57***	***31***	***Tombigbee River via unnamed tributary***
009	***32***	***27***	***22***	***87***	***58***	***29***	***Tombigbee River***
010	***32***	***27***	***21***	***87***	***58***	***34***	***Tombigbee River***

II. Improvements

A. Are you now required by any Federal, State, or local authority to meet any implementation schedule for the construction, upgrading or operation of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

1. Identification of Conditions, Agreements, Etc.	2. Affected Outfalls		3. Brief Description of Project	4. Final Compliance Date	
	number	source of discharge		a. req.	b. proj.
Not Applicable	***NA***	***NA***	***NA***	***NA***	***NA***

B. You may attach additional sheets describing any additional water pollution (or other environmental projects which may affect your discharges) you now have under way or which you plan. Indicate whether each program is now under way or planned, and indicate your actual or planned schedules for construction.

III. Site Drainage Map

Attach a site map showing topography (or indicating the outline of drainage areas served by the outfall(s) covered in the application if a topographic map is unavailable) depicting the facility including: each of its intake and discharge structures; the drainage area of each storm water outfall; paved areas and buildings within the drainage area of each storm water outfall, each known past or present areas used for outdoor storage or disposal of significant materials, each existing structure control measure to reduce pollutants in storm water runoff, materials loading and access areas, areas where pesticides, herbicides, soil conditioners and fertilizers are applied; each of its hazardous waste treatment, storage or disposal units (including each are not required to have a RCRA permit which is used for accumulating hazardous waste under 40 CFR 262.34); each well where fluids from the facility are injected underground; springs, and other surface water bodies which receive storm water discharges from the facility. **See attached site drainage map.**

Continued on Page 2

Continued from the Front

IV. Narrative Description of Pollutant Sources

A. For each outfall, provide an estimate of the area (include units) of impervious surfaces (including paved areas and building roofs) drained to the outfall, and an estimate of the total surface area drained by the outfall.

Outfall Number	Area of Impervious Surface (provide units)	Total Area Drained (provide units)	Outfall Number	Area of Impervious Surface (provide units)	Total Area Drained (provide units)
DSN 001	*156 acres*	*318 acres*	*DSN 008*	*0 acres*	*4 acres*
DSN 005	*16 acres*	*407 acres*	*DSN 009*	*0.5 acre*	*4 acres*
DSN 006	*0 acres*	*25 acres*	*DSN 010*	*0.5 acre*	*4 acres*
DSN 007	*0 acres*	*4 acres*			

B. Provide a narrative description of significant materials that are currently or in the past three years have been treated, stored or disposed in a manner to allow exposure to storm water; method of treatment, storage, or disposal; past and present materials management practices employed to minimize contact by these materials with storm water runoff; materials loading and access areas; and the location, manner, and frequency in which pesticides, herbicides, soil conditioners, and fertilizers are applied.

DSN 001 – The significant materials stored outside that are currently exposed to storm water runoff include the wastewater treatment area, the sludge basins, contractor and construction areas, and pulp storage. These areas, as well as the west side U-drains, are collected and treated in the wastewater treatment lagoons.

DSN 005 – Significant materials exposed to storm water include the woodyard wood chip storage area and the solid waste disposal sites. Runoff is directed to the East Ravine drainage containment pond or the solids settling basin. The discharge is monitored and reported.

DSN 006 – No materials are stored in the area draining to this outfall, which seasonally discharges storm water from a borrow pit.

DSN 007 – No materials are stored in the area draining to this outfall, which seasonally discharges storm water from a log truck road.

DSN 008 – No materials are stored in the area draining to this outfall, which seasonally discharges storm water from a log truck road.

DSN 009 and DSN 010 – The bark pile is the only significant material exposed to storm water draining to these outfalls.

C. For each outfall, provide the location and a description of existing structural and nonstructural control measures to reduce pollutants in storm water runoff; and a description of the treatment the storm water receives, including the schedule and type of maintenance for control and treatment measures and the ultimate disposal of any solid or fluid wastes other than by discharge.

Outfall Number	Treatment	List Codes from Table 2F-1
DSN 001	*Process Effluent Treatment – See EPA Form 2C*	
DSN 005	*Sedimentation and Discharge of Surface Water – See EPA Form 2C*	*1-U, 4-A*
DSN 006	*Sedimentation and Discharge of Surface Water*	*1-U, 4-A*
DSN 007	*Sedimentation and Discharge of Surface Water*	*1-U, 4-A*
DSN 008	*Sedimentation and Discharge of Surface Water*	*1-U, 4-A*
DSN 009	*Sedimentation and Discharge of Surface Water*	*1-U, 4-A*
DSN 010	*Sedimentation and Discharge of Surface Water*	*1-U, 4-A*

V. Non Stormwater Discharges

A. I certify under penalty of law that the outfall(s) covered by this application have been tested or evaluated for the presence of non-stormwater discharges, and that all non-stormwater discharges from these outfall(s) are identified in either an accompanying Form 2C or Form 2E application for the outfall.

Name and Official Title *(type or print)*	Signature	Date Signed
Don Holtzclaw, General Manager	Don Holtzclaw	11/28/18

B. Provide a description of the method used, the date of any testing, and the onsite drainage points that were directly observed during test.

Dry weather observations for unidentified flows into the settling basins, process waste lift station, aeration lagoon, and the stabilization lagoon.

VI. Significant Leaks or Spills

Provide existing information regarding the history of significant leaks or spills of toxic or hazardous pollutants at the facility in the last three years, including the approximate date and location of the spill or leak, and the type and amount of material released.

There have been no significant leaks or spills of toxic or hazardous pollutants at the facility during the past three years.

 Continued on Page 3

EPA ID Number *(copy from Item I of Form 1)*
ALD004003380

VII. Discharge Information

A,B,C, & D: See instruction before proceeding. Complete one set of tables for each outfall. Annotate the outfall number in the space provided. Tables Vii-A, VII-B, and VII-C are included on separate sheets numbered VII-1 and VII-2.

E. Potential discharges not covered by analysis - is any toxic pollutant listed in table 2F-2, 2F-3, or 2F-4, a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?

☐ Yes *(list all such pollutants below)* ☒ No *(go to Section IX)*

VIII. Biological Toxicity Testing Data

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☒ Yes *(list all such pollutants below)* ☐ No *(go to Section IX)*

Biological toxicity testing data are available only for DSN 001 – See EPA Form 2C and test reports submitted annually to ADEM.

IX. Contact analysis Information

Were any of the analysis reported in item VII performed by a contact laboratory or consulting firm?

☒ Yes *(list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below)* ☐ No *(go to Section X)*

A. Name	B. Address	C. Area Code & Phone No.	D. Pollutants Analyzed
Energy Technical Services, LLC	***14176 Highway 69 North Northport, AL 35475***	***(205) 330-7994***	***Ammonia (as N), BOD5, COD, Organic Nitrogen (as N), Total Phosphorus, Oil & Grease, and Total Suspended Solids***

X. 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.

A. Name & Official Title *(type or print)*	B. Area Code and Phone No.
Don Holtzclaw, General Manager	***(334) 289-1242***
B. Signature: Don Holtzclaw	D. Date Signed: 11/28/18

EPA ID Number *(copy from Item I of Form 1)*
ALD004003380

Form Approved. OMB No. 2040-0086
Approval expires 5-31-92

VII. Discharge Information *(Continued from page 3 of Form 2F)*

Part A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

Pollutant And CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number Of Storm Events Sampled	**Outfall DSN 006** Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
Oil & Grease	***2.3 mg/L***	***N/A***	***2.3 mg/L***	***N/A***	***1***	***Borrow Pit***
Biological Oxygen Demand (BOD5)	***< 2.0 mg/L***	***N/A***	***< 2.0 mg/L***	***N/A***	***1***	***Borrow Pit***
Chemical Oxygen Demand (COD)	***22 mg/L***	***N/A***	***22 mg/L***	***N/A***	***1***	***Borrow Pit***
Total Suspended Solids (TSS)	***14 mg/L***	***N/A***	***7.4 mg/L***	***N/A***	***5***	***Borrow Pit***
Ammonia (as N)	***0.13 mg/L***	***N/A***	***0.13 mg/L***	***N/A***	***1***	***Borrow Pit***
Total Organic Nitrogen	***1.79 mg/L***	***N/A***	***1.79 mg/L***	***N/A***	***1***	***Borrow Pit***
Total Phosphorus	***0.08 mg/L***	***N/A***	***0.08 mg/L***	***N/A***	***1***	***Borrow Pit***
pH	***7.7***	***N/A***	***7.4***	***N/A***	***5***	***Borrow Pit***

Part B - List each pollutant that is limited in an effluent guideline which the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit). Complete one table for each outfall. See the instructions for additional details and requirements.

Pollutant And CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
pH	***See above***					
TSS	***See above***					

EPA ID Number *(copy from Item I of Form 1)*
ALD004003380

Form Approved. OMB No. 2040-0086
Approval expires 5-31-92

VII. Discharge Information *(Continued from page 3 of Form 2F)*

Part A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

Pollutant And CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number Of Storm Events Sampled	**Outfall DSN 007 (From DSN 006 Analysis)** Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
Oil & Grease	***2.3 mg/L***	***N/A***	***2.3 mg/L***	***N/A***	***1***	***Log Truck Road***
Biological Oxygen Demand (BOD5)	***< 2.0 mg/L***	***N/A***	***< 2.0 mg/L***	***N/A***	***1***	***Log Truck Road***
Chemical Oxygen Demand (COD)	***22 mg/L***	***N/A***	***22 mg/L***	***N/A***	***1***	***Log Truck Road***
Total Suspended Solids (TSS)	***214 mg/L***	***N/A***	***83 mg/L***	***N/A***	***7***	***Log Truck Road***
Ammonia (as N)	***0.13 mg/L***	***N/A***	***0.13 mg/L***	***N/A***	***1***	***Log Truck Road***
Total Organic Nitrogen	***1.79 mg/L***	***N/A***	***1.79 mg/L***	***N/A***	***1***	***Log Truck Road***
Total Phosphorus	***0.08 mg/L***	***N/A***	***0.08 mg/L***	***N/A***	***1***	***Log Truck Road***
pH	***8.0***	***N/A***	***7.5***	***N/A***	***7***	***Log Truck Road***

Part B - List each pollutant that is limited in an effluent guideline which the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit). Complete one table for each outfall. See the instructions for additional details and requirements.

Pollutant And CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
pH	***See above***					
TSS	***See above***					

EPA ID Number *(copy from Item I of Form 1)*
ALD004003380

Form Approved. OMB No. 2040-0086
Approval expires 5-31-92

VII. Discharge Information *(Continued from page 3 of Form 2F)*

Part A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

Pollutant And CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number Of Storm Events Sampled	**Outfall DSN 008 (From DSN 006 Analysis)** Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
Oil & Grease	***2.3 mg/L***	***N/A***	***2.3 mg/L***	***N/A***	***1***	***Log Truck Road***
Biological Oxygen Demand (BOD5)	***< 2.0 mg/L***	***N/A***	***< 2.0 mg/L***	***N/A***	***1***	***Log Truck Road***
Chemical Oxygen Demand (COD)	***22 mg/L***	***N/A***	***22 mg/L***	***N/A***	***1***	***Log Truck Road***
Total Suspended Solids (TSS)	***214 mg/L***	***N/A***	***83 mg/L***	***N/A***	***7***	***Log Truck Road***
Ammonia (as N)	***0.13 mg/L***	***N/A***	***0.13 mg/L***	***N/A***	***1***	***Log Truck Road***
Total Organic Nitrogen	***1.79 mg/L***	***N/A***	***1.79 mg/L***	***N/A***	***1***	***Log Truck Road***
Total Phosphorus	***0.08 mg/L***	***N/A***	***0.08 mg/L***	***N/A***	***1***	***Log Truck Road***
pH	***8.0***	***N/A***	***7.5***	***N/A***	***7***	***Log Truck Road***

Part B - List each pollutant that is limited in an effluent guideline which the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit). Complete one table for each outfall. See the instructions for additional details and requirements.

Pollutant And CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
pH	***See above***					
TSS	***See above***					

EPA ID Number *(copy from Item I of Form 1)*
ALD004003380

Form Approved. OMB No. 2040-0086
Approval expires 5-31-92

VII. Discharge Information *(Continued from page 3 of Form 2F)*

Part A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

Pollutant And CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number Of Storm Events Sampled	**Outfall DSN 009 (BOD5, COD, and Nutrients from DSN 006 Analysis)** Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
Oil & Grease	***3.2 mg/L***	***N/A***	***2.2 mg/L***	***N/A***	***2***	***Bark Pile***
Biological Oxygen Demand (BOD5)	***< 2.0 mg/L***	***N/A***	***< 2.0 mg/L***	***N/A***	***1***	***Bark Pile***
Chemical Oxygen Demand (COD)	***22 mg/L***	***N/A***	***22 mg/L***	***N/A***	***1***	***Bark Pile***
Total Suspended Solids (TSS)	***287 mg/L***	***N/A***	***160 mg/L***	***N/A***	***2***	***Bark Pile***
Ammonia (as N)	***0.13 mg/L***	***N/A***	***0.13 mg/L***	***N/A***	***1***	***Bark Pile***
Total Organic Nitrogen	***1.79 mg/L***	***N/A***	***1.79 mg/L***	***N/A***	***1***	***Bark Pile***
Total Phosphorus	***0.08 mg/L***	***N/A***	***0.08 mg/L***	***N/A***	***1***	***Bark Pile***
pH	***7.5***	***N/A***	***7.3***	***N/A***	***2***	***Bark Pile***

Part B - List each pollutant that is limited in an effluent guideline which the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit). Complete one table for each outfall. See the instructions for additional details and requirements.

Pollutant And CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
pH	***See above***					
TSS	***See above***					

EPA ID Number *(copy from Item I of Form 1)*
ALD004003380

Form Approved. OMB No. 2040-0086
Approval expires 5-31-92

VII. Discharge Information *(Continued from page 3 of Form 2F)*

Part A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

Pollutant And CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number Of Storm Events Sampled	**Outfall DSN 010 (BOD5, COD, and Nutrients from DSN 006 Analysis)** Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
Oil & Grease	***3.2 mg/L***	***N/A***	***2.2 mg/L***	***N/A***	***2***	***Bark Pile***
Biological Oxygen Demand (BOD5)	***< 2.0 mg/L***	***N/A***	***< 2.0 mg/L***	***N/A***	***1***	***Bark Pile***
Chemical Oxygen Demand (COD)	***22 mg/L***	***N/A***	***22 mg/L***	***N/A***	***1***	***Bark Pile***
Total Suspended Solids (TSS)	***287 mg/L***	***N/A***	***160 mg/L***	***N/A***	***2***	***Bark Pile***
Ammonia (as N)	***0.13 mg/L***	***N/A***	***0.13 mg/L***	***N/A***	***1***	***Bark Pile***
Total Organic Nitrogen	***1.79 mg/L***	***N/A***	***1.79 mg/L***	***N/A***	***1***	***Bark Pile***
Total Phosphorus	***0.08 mg/L***	***N/A***	***0.08 mg/L***	***N/A***	***1***	***Bark Pile***
pH	***7.5***	***N/A***	***7.3***	***N/A***	***2***	***Bark Pile***

Part B - List each pollutant that is limited in an effluent guideline which the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit). Complete one table for each outfall. See the instructions for additional details and requirements.

Pollutant And CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
pH	***See above***					
TSS	***See above***					

Continued from the Front

Part C - List each pollutant shown in Tables 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall.

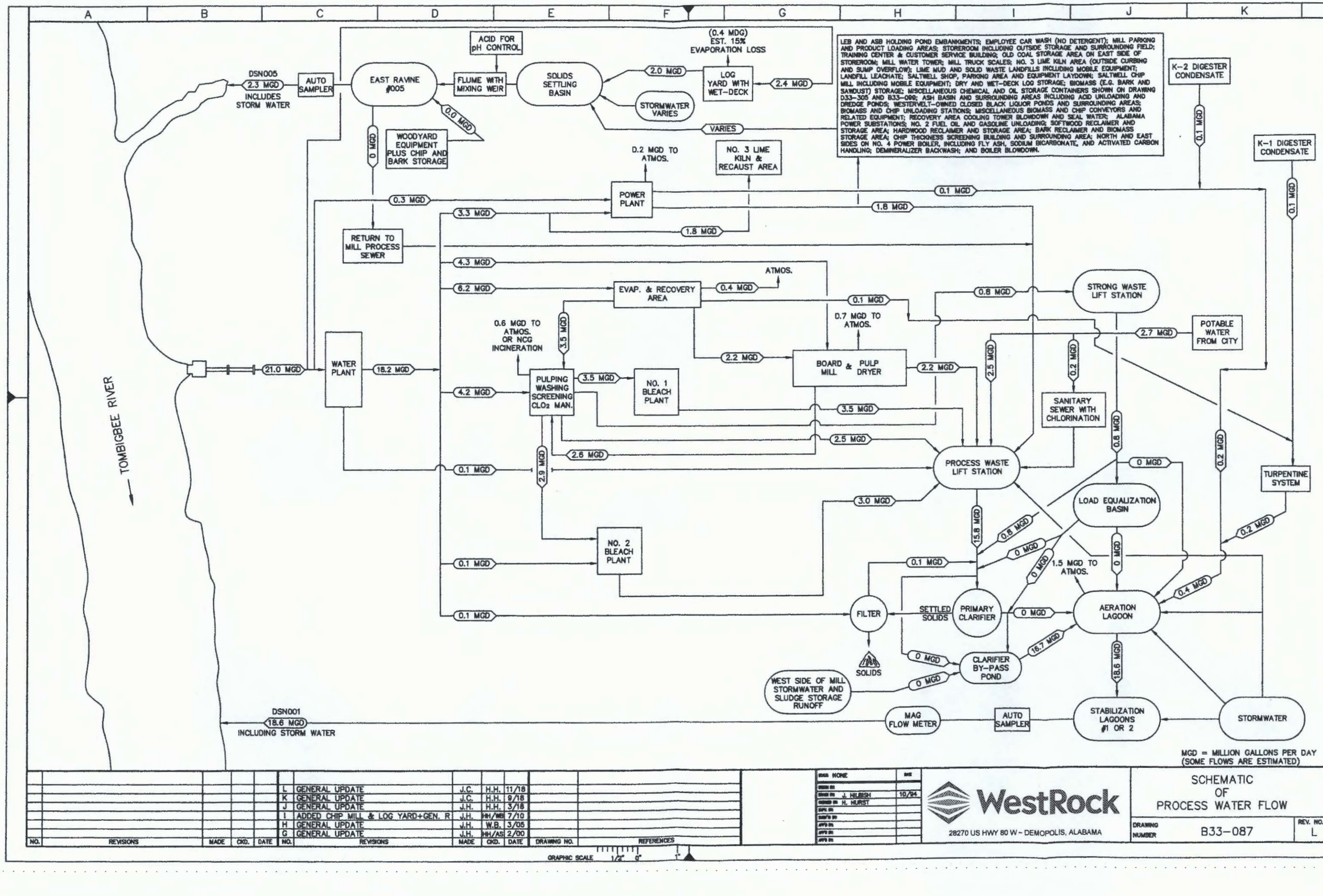
Pollutant And CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number Of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-weighted Composite		
See EPA Form						
2C for Outfalls						
DSN 001 & 005						
Not Applicable						
for Outfalls DSN						
006 through 010						

Part D - Provide data for the storm event(s) which resulted in the maximum values for the flow weighted composite sample.

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Total flow from rain event *(gallons or specify units)*
N/A				

7. Provide a description of the method of flow measurement or estimate.

DSN 001 is a continuous discharge outfall equipped with a magnetic flow meter.
DSN 005 is a continuous discharge outfall equipped with a discharge weir.
DSN 006, 007, 008, 009, and 010 are non-continuous storm water discharges.



NO.	REVISIONS	MADE	CKD.	DATE
L	GENERAL UPDATE	J.C.	H.H.	11/18
K	GENERAL UPDATE	J.C.	H.H.	9/18
J	GENERAL UPDATE	J.H.	H.H.	3/18
I	ADDED CHIP MILL & LOG YARD+GEN. R	J.H.	HH/WB	7/10
H	GENERAL UPDATE	J.H.	W.B.	3/05
G	GENERAL UPDATE	J.H.	HH/AS	2/00

DRAWING NO.

REFERENCES

GRAPHIC SCALE 1/2" 0" 1"

SCALE	NONE
DRAWN BY	J. HUBISH
CHECKED BY	H. HURST
DATE	10/94

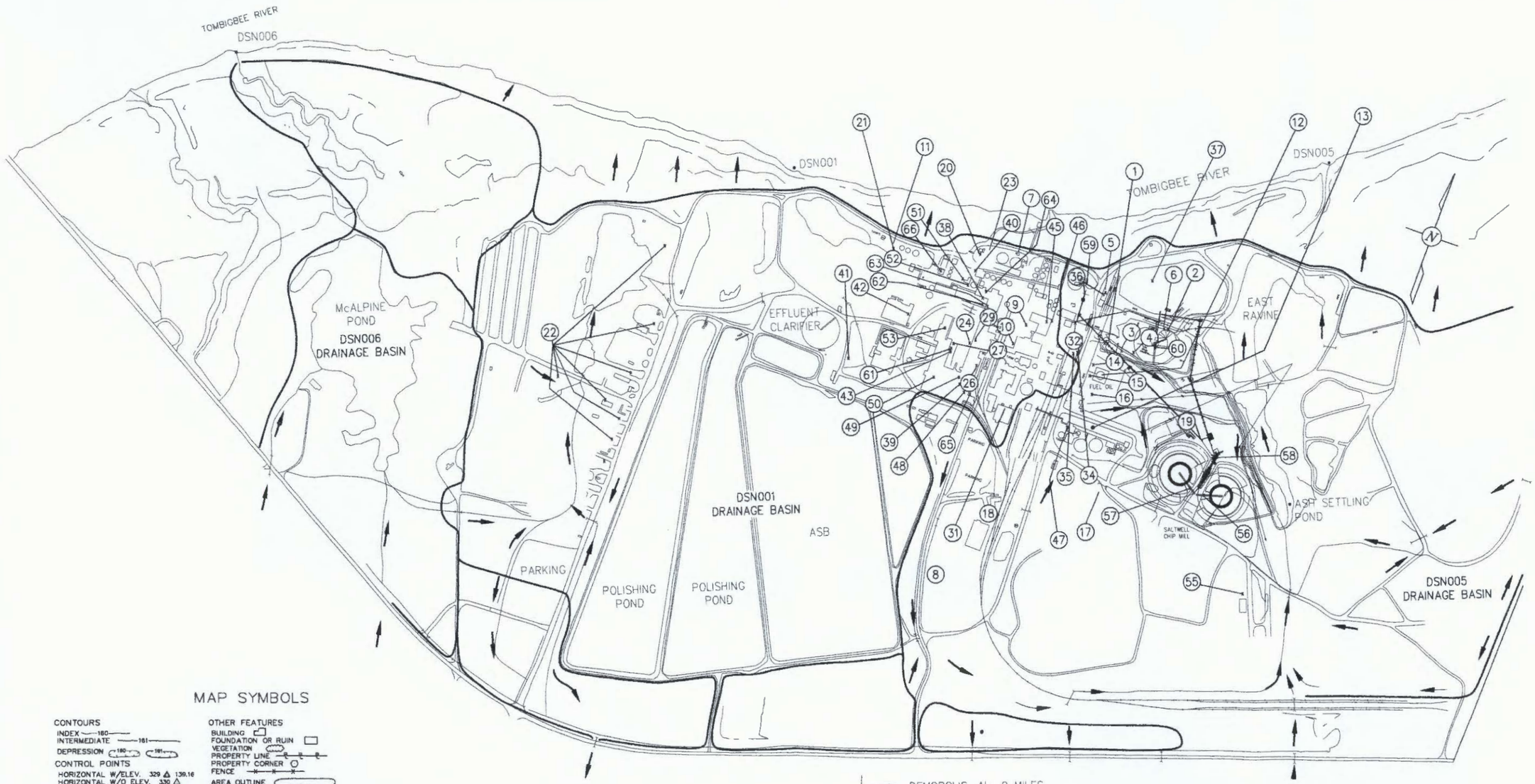
WestRock

28270 US HWY 80 W ~ DEMOPOLIS, ALABAMA

SCHEMATIC OF PROCESS WATER FLOW

DRAWING NUMBER B33-087

REV. NO. L



MAP SYMBOLS

CONTOURS
- INDEX — 180 —
- INTERMEDIATE — 181 —
- DEPRESSION 180 181

CONTROL POINTS
- HORIZONTAL W/ELEV. 329 △ 139.16
- HORIZONTAL W/O ELEV. 330 △
- VERTICAL ONLY 331 ○ 151.88
- PHOTOGRAMMETRIC ELEV. × 164.8

DRAINAGE
- STREAM OR SHORELINE
- CULVERT
- BRIDGE
- MARSH

ROADS
- PRIMARY
- SECONDARY
- PAVED PRKG.
- TRAIL
- RAILROAD

OTHER FEATURES
- BUILDING
- FOUNDATION OR RUIN
- VEGETATION
- PROPERTY LINE
- PROPERTY CORNER
- FENCE
- AREA OUTLINE
- WALL
- RETAINING WALL (LOW SIDE / HIGH SIDE)
- UTILITY POLE
- LIGHT POLE
- TOWER
- WALK
- DRILL HOLE
- MONITOR WELL
- FLAGPOLE
- ANTENNA

NOTE: THE POSITIONS OF CONTOURS AND FEATURES WITHIN VEGETATION LINES ARE ESTIMATED. DASHED CONTOURS INDICATE AREAS WHERE THE GROUND IS COMPLETELY OBSCURED BY VEGETATION.

NOTE: SURVEY CONTROL DATA PROVIDED BY CLIENT.

NO.	REVISIONS	MADE	CKD.	DATE
9	GEN REVISION & UPDATE	JH	HH	2/24/17
8	GEN REVISION & UPDATE	JH	HH	8/22/14

NO.	REVISIONS	MADE	CKD.	DATE
7	CHANGED TITLE	WTO	RC	2/25/14
6	REMOVED 8, 28 & 33, RELOCATED 21, 25, & 30	JH	HH	5/3/13
5	ADDED 61 THRU 66	JH	HH	3/5/12
4	REMVD. & RELO'D OIL CONTAINERS ADDED FUEL OIL	JH	HH	7/13/11
3	ADDED DSN008	WTO	VV	7/16/09
2	GENERAL REVISION & UPDATE	A. BOYD		5/12/09
1	REMOVED AND RELOCATED OIL CONTAINERS	WTO	HH	7/27/06

DRAWING NO.

REFERENCES

GRAPHIC SCALE 1/2" 0" 1"

SCALE: NONE

DESIGN BY:

DRAWN BY: J. HILBISH 7/20/98

CHECKED BY: H. HURST 7/20/98

SUPV. BY:

SUBMITTED BY:

APVD BY:

APVD BY:

APVD BY:

DATE

WestRock

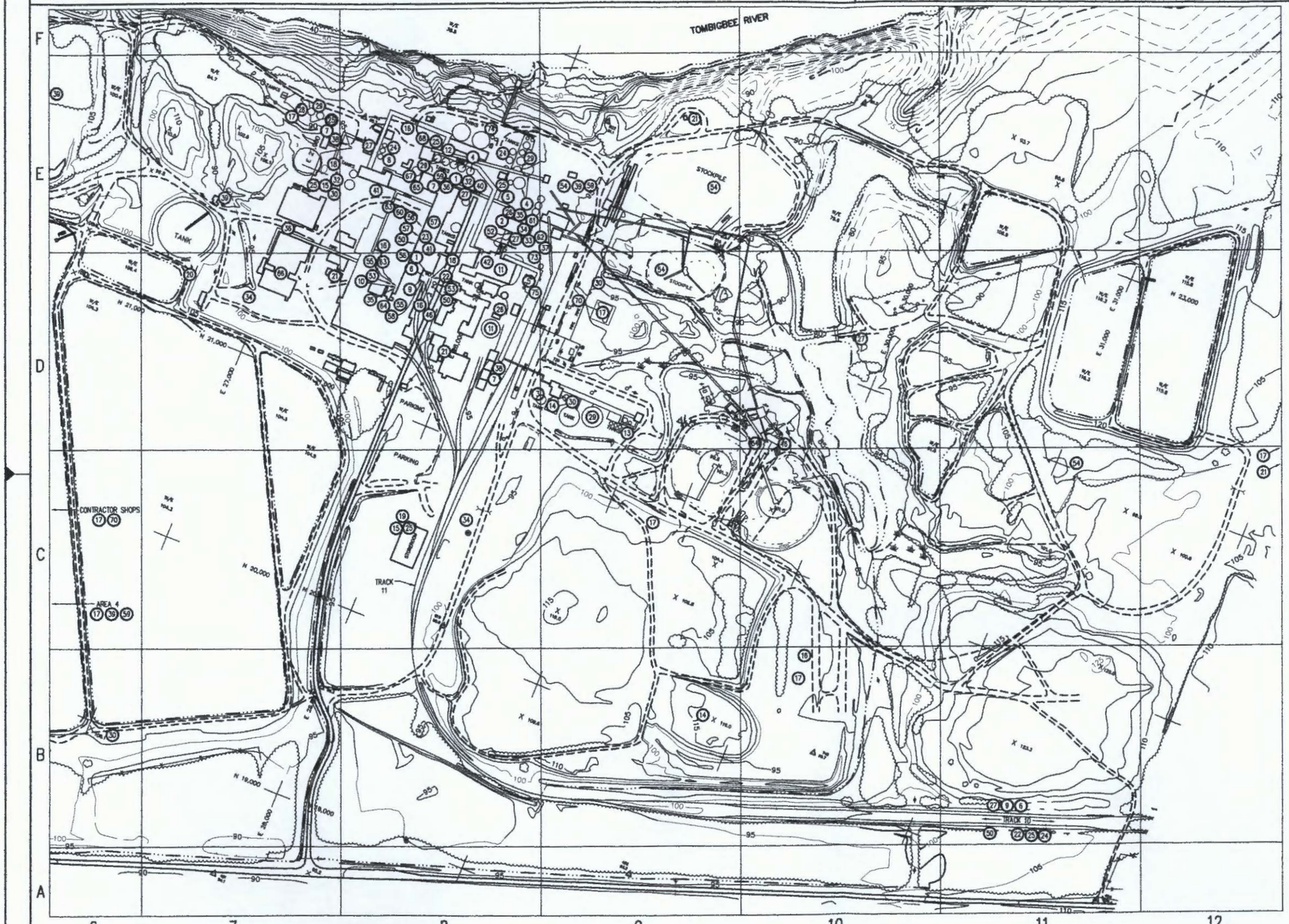
28270 US HWY 80 W ~ DEMOPOLIS, ALABAMA

LOCATION OF OIL CONTAINERS AND TRANSFORMER OIL (UBIQUITOUS)

DRAWING NUMBER B33-099

REV. NO. 9

PROJECT NO.



LEGEND FOR CHEMICAL INVENTORY

1. ALUMINUM SULFATE D-8, E-8
2. AMERTROL HPD6601 E-8
3. SODIUM HYDROSULPHIDE D-8
4. BLACK LIQUOR (WEAK) E-8, E-8, E-8, E-8, E-8
5. BLACK LIQUOR (HEAVY) D-8
6. CALCIUM CARBONATE (H50) (H90) D-8, B-11
7. SODIUM HYPOCHLORITE E-8, E-7, D-8
8. CHLORINE DIOXIDE E-8, E-8
9. CLAY, KAOLIN SLURRY, BARRISURF HX, XP08-6170 D-8, D-8, B-11
10. SLIMICIDE, NALCON 7678 D-8
11. GREEN LIQUOR D-8, D-8
12. SODIUM HYDROXIDE (73%) E-8
13. CALCIUM OXIDE (LIME) D-9, D-9
14. LIME MUD D-9, B-9
15. METHANOL E-7, C-8
16. OIL, PETROLEUM E-8, E-8, E-8, D-8, D-8, D-8, D-10 - UBIQUITOUS
17. FUEL OIL D-9, UBIQUITOUS, C-9, C-12, E-7, B-10
18. OXYGEN LIQUID E-7
19. TRANSFORMER OIL C-8
20.
21. PROPANE D-8, D-7, E-7, C-12, E-9
22. STAFOR LIQUID (ROSIN SIZE) D-8, B-11
23. SODIUM ALUMINATE E-8
24. SODIUM CHLORATE E-8, E-8, B-11
25. SODIUM HYDROXIDE E-7, B-11, E-7, E-8
26. PENSURF 74418 D-8
27. SULFURIC ACID E-8, E-8, B-11, D-10
28. TURPENTINE E-7
29. WHITE LIQUOR E-8, E-8, D-9, E-7
30. HYDROGEN PEROXIDE D-9, E-7, B-6
31.
32. SCALE-GUARD PLUS 60119, NALCO 60116 E-8
33. HYDROQUINONE (AMERSITE 2230) E-8
34. GRAVEL C-8, D-7
35. AMMONIA, AQUA D-8, E-8
36. HYDROCHLORIC ACID (MURATIC ACID), SULFAMIC ACID E-8, E-7
37. WOOD ASH E-9
38. PERFORMAX 2021A D-8, E-7
39. WASTE WATER TREATMENT RESIDUAL, E-7, E-9, E-6
40. BUSPERSE 918 E-8
41. T-WET END SAFETY CLEAN, T. CLEAN 232, T-CHEM T-BOILOUT 244 E-8
42. UREA SOLUTION D-8
43.
44.
45.
46. DOW POLYCO 2160, DOW ROPAQUE AF1353 D-8
47.
48.
49.
50. STARCH CATO 227, ETHYLEX 2065, HYDRAGLOSS-SP90 D-8, E-8
51.
52. AMERCOR 1848 E-8
53. PARAFORM 641 PARATECT 747, PARACLEAN 336 D-8
54. WOOD CHIPS AND BARK D-9, E-9
55. GREENVILLE ELCOMENT VIOLENT RP D-8
56. BERCHEM 4095, BERCHEM 4842 D-8, E-8
57. NALCO 63900, NALCO 1155 E-8
58. STEROCOLL FS D-8
59. PULP MILL REJECTS E-8, E-9
60. PARACOL 1324C E-8
61. INFINITY SL 4369, INFINITY SL 4393, INFINITY PS 7937 E-8
62. AMERTROL HPD9901, ACTIVATED CARBON, CITRIC ACID, SAND, SODIUM BICARBONATE, SODIUM NITRATE E-9
63. PARADIGM 211RT, PARACLEAN 105, 265, 505CG, 512CG, 731F & 737 E-8, D-8
64. T-DEGREASE 200 D-8
65. DEFOAMER (OIL & SILICONE BASED) E-8
66. T-NO DUST D-7
67. MAGNESIUM HYDROXIDE E-8
68. BULAB 6004, OXAMINE 6150 E-8
69.
70. GASOLINE D-9 UBIQUITOUS
71.
72.
73. MILLSPERSE 8369 D-8
74. CHARGE PAC55 E-8
75. BLACK LIQUOR SOAP D-8
76. LEAD ACID BATTERIES (INDUSTRIAL BATTERIES) UBIQUITOUS

NO.	REVISIONS	MADE	CKD.	DATE
20	GENERAL REVISION (UPDATE)	JH	HH	2/18
19	GENERAL REVISION (UPDATE)	JH	HH	2/17
18	GENERAL REVISION (UPDATE)	JH	HH	2/16
17	GENERAL REVISION (UPDATE)	JH	HH	2/15
16	GENERAL REVISION (UPDATE)	WTO	RC	2/14
15	GENERAL REVISION (UPDATE)	WTO	RC	2/13
14	GENERAL REVISION (UPDATE)	WTO	RC	2/12
13	GENERAL REVISION (UPDATE)	WTO	RC	2/11
12	GENERAL REVISION (UPDATE)	JH	RC	2/10
11	GENERAL REVISION (UPDATE)	WTO	RC	2/08
10	GENERAL REVISION (UPDATE) ADDED 62, 63 & 64	JH	AM	2/08
9	GENERAL REVISION (UPDATE) ADDED 49 THRU 61	JH	VM	2/07
8	GENERAL REVISION (UPDATE)	WTO	S.S.	2/06
7	GENERAL REVISION (UPDATE)	WTO	S.S.	2/05
6	GENERAL REVISION (UPDATE)	WTO	S.S.	2/04
5	GENERAL REVISION (UPDATE)	WTO	S.S.	2/03
4	GENERAL REVISION (UPDATE)	J.H.	S.S.	2/02
3	GENERAL REVISION (UPDATE)	J.H.	S.S.	2/01
2	GENERAL REVISION (UPDATE)	J.H.	S.S.	2/00
1	GENERAL REVISION (UPDATE)	J.H.	S.N.	2/99

GRAPHIC SCALE 1/2" 0" 1"

SCALE: 1"=250'

DESIGN BY:
DRAWN BY: J. HUBISH 2/98
CHECKED BY: A. SIMCROFT 2/98
APP'D BY:
SUBMITTED BY:
APP'D BY:
APP'D BY:
APP'D BY:

WestRock

28270 US HWY 80 W - DEMOPOLIS, ALABAMA

CHEMICAL STORAGE LOCATION PLAN

DRAWING NUMBER D33-305

REV. NO. 20

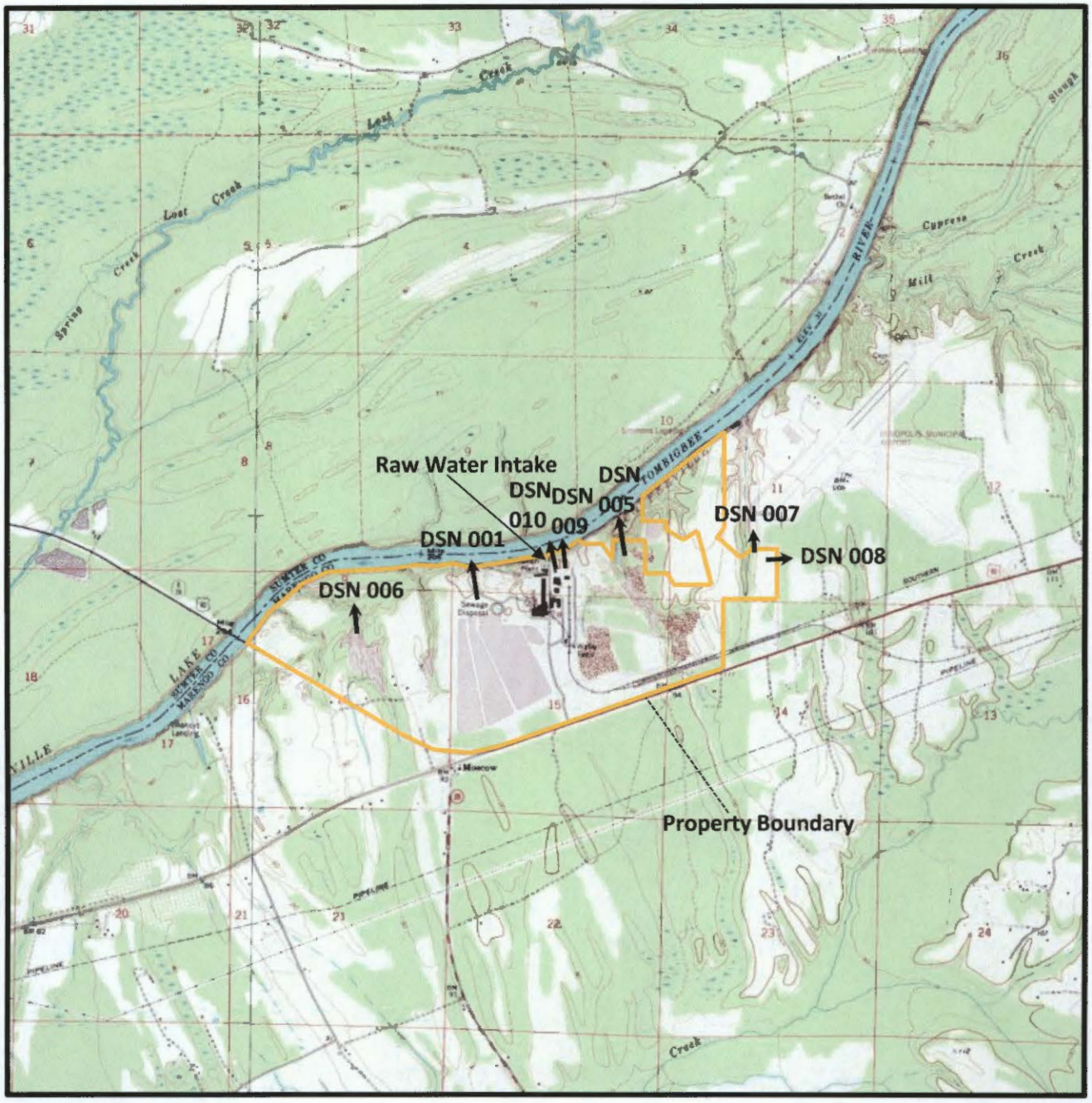


Figure 4. Site Map for WestRock Mill Company, LLC – Demopolis Mill

Spivey Engineering Solutions, LLC

7956 Vaughn Road Box 373 • Montgomery, Alabama 36116 • (334) 241-0355 • FAX (334) 241-9951

Technical Memorandum

To: Harris Hurst / WestRock Mill Company, LLC

From: Don Spivey

Date: September 24, 2018

Subject: Performance-Based Reduction of NPDES Permit Monitoring Frequencies
WestRock Mill Company, LLC – Demopolis, Alabama

The purpose of this memorandum is to evaluate the potential to reduce National Pollutant Discharge Elimination System (NPDES) monitoring frequencies for chloroform in the two bleach plant internal outfalls and for adsorbable organohalogens (AOX) in Outfall DSN 001 from WestRock Mill Company, LLC (WestRock), near Demopolis, Alabama. WestRock retained Spivey Engineering Solutions, LLC, to apply the U. S. Environmental Protection Agency's (EPA's) *Interim Guidance for Performance-Based Reduction of NPDES Permit Monitoring Frequencies* (April 1996) to the long-term average chloroform discharge data recorded for the period between January 1, 2013, and January 31, 2018, and to the long-term average AOX discharge data recorded for the period between January 1, 2015, and September 30, 2018. This memorandum describes the approach taken by Spivey Engineering to assess the potential for reducing the frequency of chloroform and AOX monitoring.

The results of Spivey Engineering's evaluation indicate that quarterly monitoring of chloroform and AOX can potentially be reduced to semi-annual monitoring without increasing the probability of WestRock reporting a violation of the respective monthly average discharge limits.

Evaluation Approach

WestRock's baseline monitoring frequency for chloroform and AOX is one sample per quarter. WestRock is seeking to reduce the monitoring frequency of chloroform and AOX to one sample per six month period.

To evaluate the potential for reducing this monitoring frequency, Spivey Engineering applied EPA's *Interim Guidance for Performance-Based Reduction of NPDES Permit Monitoring Frequencies* (April 1996) to five years of bleach plant effluent discharge data and three years of final effluent discharge data for compiled by the Demopolis Mill. EPA's interim guidance recommends that a minimum of two years of data be considered in developing the long-term average and standard deviation of the monitoring parameters.

Spivey Engineering calculated the mean and standard deviation for chloroform in the Demopolis Mill's A-Line and B-Line bleach plant effluents for the five-year period of January 1, 2013 through January 31, 2018. Spivey Engineering then compared the long-term average chloroform to the permitted monthly discharge limits proposed for DSN 001A and DSN 001B in the NPDES permit renewal application. Similarly, Spivey Engineering calculated the mean and standard deviation for AOX in the Demopolis Mill's DSN 001 effluent for the period of January 1, 2015 through September 30, 2018. Spivey Engineering then compared the long-term average AOX to the permitted monthly discharge limit proposed for DSN 001 in the NPDES permit renewal application.

Results of Evaluation

Table 1 of EPA's *Interim Guidance for Performance-Based Reduction of NPDES Permit Monitoring Frequencies* (April 1996) identifies the monitoring frequency for which a permittee may be eligible based on the ratio of the long-term average pollutant mass discharged to the permitted monthly average discharge rate. Figure 1 shows that the Demopolis Mill's ratio of long-term average chloroform to permitted monthly average chloroform is 5.1 percent for the A-Line (DSN 001A). The ratio of long-term average chloroform to permitted monthly average chloroform is 11.3 percent for the B-Line (DSN 001B. The ratio of long-term average AOX to permitted monthly average AOX is 24.1 percent for DSN 001.

For chloroform and AOX, the ratio of long-term average pollutant mass loading to permitted monthly average discharge limit is well below EPA's 25 percent threshold (from Table 1 of the interim guidance) for reducing monitoring frequency from quarterly to semi-annually. Spivey Engineering's evaluation of the long-term average chloroform loadings in the Demopolis Mill's A-Line and B-Line bleach plant effluents and long-term average AOX loading in DSN 001 therefore demonstrates that the chloroform and AOX monitoring frequencies can be reduced from quarterly to semi-annually without increasing the probability of the Demopolis Mill reporting a violation of monthly average chloroform in each internal outfall or monthly average AOX in DSN 001.

Recommendations

Spivey Engineering's evaluation of the long-term average chloroform loadings in the Demopolis Mill's A-Line and B-Line bleach plant effluents and long-term average AOX loading in DSN 001 demonstrates that the chloroform and AOX monitoring frequencies can be reduced from quarterly to semi-annually without increasing the probability of the Demopolis Mill reporting a violation of monthly average chloroform in each internal outfall or monthly average AOX in DSN 001. Spivey Engineering therefore recommends that the Demopolis Mill incorporate these findings into the NPDES permit renewal application to ADEM.

Figure 1. Evaluation of Performance-Based Reduction of Effluent Monitoring Frequencies
WestRock Mill Company, LLC - Demopolis Mill

	Long Term Average (LTA)	Standard Deviation of LTA	Monthly Permit Limit	LTA/Permit Limit (%)	samples/ month (N)	sqrt(N)	SD/sqrt(N)	CV (%)	normdist (P)	1-P	%(1-P)
AOX	382.5	45.8	1586	24.1	0.1667	0.4	71.68	12.0	1.000000	0.0000	0
Chloroform (DSN 001A)	0.369	0.374	7.3	5.1	0.1667	0.4	0.59	101.4	1.000000	0.0000	0E+00
Chloroform (DSN 001B)	0.361	0.267	3.2	11.3	0.1667	0.4	0.42	74.0	1.000000	0.0000	5E-10

$$P(M_N > \mu_1) = P\left(\frac{M_N - \mu}{\frac{\sigma}{\sqrt{N}}} > \frac{\mu_1 - \mu}{\frac{\sigma}{\sqrt{N}}}\right) = 1 - \phi\left(\frac{\mu_1 - \mu}{\frac{\sigma}{\sqrt{N}}}\right),$$

= 1-normdist[(Monthly Limit-LTA)/(SD/SQRT(N))]

Enter the LTA, Standard Deviation, Monthly Permit Limit and desired monthly sampling frequency. (Highlighted)
%1-P is the increased probability of reporting a violation for the desired monitoring frequency.
If %1-P > 1% adjust the monitoring frequency.

	AOX
	-
	2104
	1378
	ppd
1Q2015	325
2Q2015	
3Q2015	327
4Q2015	205
1Q2016	222
2Q2016	487
3Q2016	245
4Q2016	203
1Q2017	283
2Q2017	493
3Q2017	639
4Q2017	523
1Q2018	581
2Q2018	442
3Q2018	380

Mean =	382.5
Std Dev =	145.8

DSN 001A

Month	Year	CF
		-
		11.05
		6.61
		Monthly
		ppd
Jan	2013	1.85
Apr	2013	0.37
July	2013	0.42
Oct	2013	0.13
Jan	2014	0.26
April	2014	0.14
July	2014	0.2
Oct	2014	0.73
Jan	2015	0.14
Apr	2015	0.46
July	2015	0.53
Oct	2015	0.12
January	2016	0.17
April	2016	0.31
July	2016	0.14
October	2016	0.41
January	2017	0.28
April	2017	0.2
July	2017	0.2
October	2017	0.29
January	2018	0.39

DSN 001B

Month	Year	CF
		-
		4.26
		2.5
		Monthly
		ppd
Jan	2013	0.35
Apr	2013	0.32
July	2013	0.31
Oct	2013	1.31
Jan	2014	0.41
April	2014	0.28
July	2014	0.81
Oct	2014	0.45
Jan	2015	0.41
Apr	2015	0.43
July	2015	0.41
Oct	2015	0.32
January	2016	0.16
April	2016	0.2
July	2016	0.31
October	2016	0.16
January	2017	0.18
April	2017	0.13
July	2017	0.36
October	2017	0.1
January	2018	0.18

INTERIM GUIDANCE FOR PERFORMANCE-BASED REDUCTION OF NPDES PERMIT MONITORING FREQUENCIES

April 1996

This document provides guidance to EPA permit writers and States on how best to implement EPA's National Pollutant Elimination System (NPDES) regulations regarding appropriate monitoring requirements in permits. It also provides guidance to the public and to the regulated community on how EPA intends to exercise its discretion in implementing its regulations. The guidance is designed to implement national policy on these issues. Pretreatment control authorities also may find it helpful in setting monitoring frequency for industrial users of POTWs. The document does not substitute for EPA's regulations, nor is it a regulation itself. Thus, it cannot impose legally binding requirements on EPA, States, or the regulated community, and may not apply to a particular situation based upon the circumstances. EPA may change this guidance in the future, as appropriate.

INTERIM GUIDANCE FOR PERFORMANCE-BASED REDUCT OF NPDES PERMIT MONITORING FREQUENCIES

Introduction

The President's Regulatory Reinvention Initiative for the Environmental Protection Agency (EPA) established an interim goal of reducing reporting and monitoring by at least 25%. This goal is also embodied in the Office of Water's Agenda for the Future, which sets forth program priorities for the coming years for EPA and States.

Based on these directions, EPA's Offices of Water and Enforcement & Compliance Assurance developed this Interim Guidance to reduce regulatory burdens associated with reporting and monitoring based on a demonstration of excellent historical performance by facilities subject to NPDES permit requirements. Under this guidance, facilities can demonstrate this historical performance through both compliance and enforcement history and a demonstrated ability to consistently reduce pollutants in their discharge below the levels necessary to meet existing permit requirements. Facilities will also be expected to maintain these performance levels to continue to receive the reductions. Reducing burdens in this manner will also provide incentives for voluntary reductions of pollutant discharges through such means as reuse and recycling.

The approach for determining the degree of burden reduction available to individual facilities is statistically sound and will not reduce the ability of EPA and States to determine non-compliance with permit requirements.

This guidance should also prove useful in setting monitoring frequencies for industrial users of POTWs. EPA has not studied whether the variability of industrial users' effluent is similar to that for NPDES permittees. Pretreatment control authorities may choose to apply this policy to their industrial users with effluent similar to that discussed in this guidance.

Future reductions to NPDES that can be integrated into this burden reduction initiative include ongoing ambient monitoring efforts within the Office of Water.

Summary of Decision-Making Process

The guidance applies to both major and minor individual NPDES permits for direct discharges and will be implemented through the existing NPDES permitting cycle for facilities.
The following steps are to be taken when determining if a particular facility is eligible for reductions, and, if so, the amount of these reductions. These steps are also described in more detail in the next section of the guidance.

1) Facility[1] Enforcement History

Each facility's enforcement history is analyzed to assess eligibility for reductions under the guidance. Criminal convictions under any environmental statute and NPDES civil judicial and administrative enforcement actions are criteria considered in determining eligibility.

2) Parameter-by-Parameter Compliance History

For each eligible facility the compliance history for each parameter controlled in its existing permit is examined for Significant Noncompliance violations and/or effluent violations for critical parameters. These critical parameters are determined at the discretion of the permitting authority and could include pollutants which pose a higher risk to human or environmental health. The results of this examination determine which parameters are eligible for monitoring reductions.

3) Parameter-by-Parameter Performance History

The permitting authority then calculates, for each eligible parameter, the two-year composite average at each outfall. The composite average is compared with the permit limit, and the information in Table 1, which is based on the existing monitoring frequency, to determine the potential monitoring frequency reduction.

4) Continued Eligibility for Reductions

EPA and States would continue to monitor each parameter for significant noncompliance and any effluent violations of critical parameters, failure to submit DMRs, and any new enforcement actions. If violations based on these do occur, the permitting authority may require increased monitoring in accordance with a Section 308 or 309 order (or State equivalent).

5) Future Reductions for Ambient Monitoring

Based on the facility's agreement to participate in an ambient monitoring program, along with other stakeholders in a watershed, additional reductions could be provided, at the discretion of the permitting authority.

Timing of Decisions

Monitoring reductions should be considered during permit reissuance. Reductions based on facility performance may also be considered if the permit is reopened to accommodate other issues. The permitting authority may, at their option, modify the permit solely to reduce monitoring requirements if sufficient resources are available. Monitoring requirements are not

[1]he term "facility" as used in this document refers to the regulated entity.

considered effluent limitations under section 402(o) of the Clean Water Act, and therefore anti-backsliding prohibitions would not be triggered by reductions in monitoring frequencies.

Permit monitoring requirements may, at the permit issuing authority's option, contain conditions for decreases in monitoring if specified performance conditions are met and/or require increased monitoring if performance levels drop. Although such conditions have sometimes been used in NPDES permits in the past, these conditions cannot now be tracked in the Permits Compliance System (PCS) data base system. If the permitting authority has sufficient resources to manually track changed reporting frequencies, such provisions could be included in the permit when the monitoring frequencies are adjusted based on changed performance. Increased monitoring requirements if performance levels are not maintained will be incorporated through enforcement orders under Sections 308 or 309 of the Clean Water Act (or State equivalent).

Entry Criteria for Participation

1) Facility Enforcement History

Criminal Actions (all environmental statutes)

- Facilities which have been criminally convicted under any Federal or State environmental statute of falsifying monitoring data or committing violations which presented an imminent and substantial endangerment to public health or welfare *will not receive any reductions at any time in the future*[2].

- Facilities convicted of any other criminal violation under any Federal or State environmental statute *will not receive any reductions for five years.*

- *Reductions will be available* for those facilities where an individual employed by the permittee, but not the permittee itself, was convicted of a criminal violation under any Federal or State environmental statute, provided the permittee discovered and self-disclosed the violation, and took prompt action to correct the root cause in order to prevent future criminal violations.

Civil Judicial Actions (Clean Water Act/NPDES related)

- Facilities are eligible for consideration of reductions 1 year after completion of injunctive relief and payment of penalty.

Administrative Actions (Clean Water Act/NPDES related)

- Facilities are eligible for consideration after the permittee has complied with

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Vhenever the permit writer, on a case-by-case basis, determines that there has been a wholesale change in ownership and management, that ity may become eligible for consideration under this guidance as a new permittee.

Administrative Penalty Order (APO) or Administrative Order (AO) (including State equivalent) requirements, and payment of any assessed penalty. A permittee that is issued an AO, in conjunction with reissuance of its permit, to extend a compliance schedule, may be eligible if the permittee is in compliance with the interim milestones and schedule in the AO.

For example, in order to comply with a newly promulgated effluent guideline, an industrial sector may be required to install a new technology. Some facilities may not be able to attain the new technology immediately so an AO is issued at the time the facility's permit is reissued. The AO sets a compliance schedule to allow the permittee additional time to install the technology needed to meet the new effluent guideline limitation.

2) Parameter-by-Parameter Compliance

The permitting authority will examine each of the following entry criteria:

Significant Noncompliance for Parameters under Consideration

- A facility may not have had any Significant Noncompliance (SNC) violations for the parameters for which monitoring/reporting reductions are being considered during the last two years and,

Any Effluent Violations of Selected Parameters

- A facility may not have had any effluent violations of selected (critical) parameters during the last year. The "selected parameters" can be permit-specific and would be determined at the discretion of the permitting authority. These parameters could include pollutants which pose heightened risks to human or environmental health, such as highly toxic or bioaccumulative compounds.

3) Parameter-by-Parameter Performance History

- At a minimum, the two most recent years of monthly average effluent data representative of current operating conditions for the parameter at the particular outfall will be used to calculate the long term average discharge rate for use in Table 1.

- The baseline monitoring frequencies in Table 1 of this guidance will normally be considered the level of monitoring in the existing effective NPDES permit. It is important to recognize that permittees that receive monitoring frequency reductions in accordance with Table 1 or Table 2 are still expected to take all appropriate measures to control both the average level of pollutants of concern in their discharge (mean) as well as the variability of such parameters in the discharge (variance), *regardless* of any reductions in monitoring frequencies granted from the baseline levels. Reliance on monitoring the discharge at a reduced frequency as the sole means of tracking and controlling the discharge could increase the risk of violations.

Table 1

Ratio of Long Term Effluent Average to Monthly Average Limit

Baseline Monitoring	75-66%	65-50%	49-25%	<25%
7/wk	5/wk	4/wk	3/wk	1/wk
6/wk	4/wk	3/wk	2/wk	1/wk
5/wk	4/wk	3/wk	2/wk	1/wk
4/wk	3/wk	2/wk	1/wk	1/wk
3/wk	3/wk	2/wk	1/wk	1/wk
2/wk	2/wk	1/wk	2/mo	1/mo
1/wk	1/wk	1/wk	2/mo	1/2mos
2/month	2/mo	2/mo	2/mo	1/quarter
1/month	1/mo	1/mo	1/quarter	1/6mos

Note: See above eligibility requirements.

- New permittees should go through one permit cycle (5 years) before being eligible for consideration for reduced monitoring.

- Facilities would not normally be considered for reductions in monitoring frequencies below once per quarter, except in unusual circumstances of reliable performance at the requisite levels and outstanding compliance/enforcement histories.

- Facilities which satisfy the entry criteria but are not experiencing discharges of 75% or less of their permitted levels of water quality-based parameters may still be eligible for reductions in monitoring/reporting frequencies at the discretion of the permitting authority. To control an increased risk of undetected violations, monitoring should only be reduced for such parameters if the applicant can demonstrate a very low variation in the concentrations being discharged.

  Parameters that show a long-term (2 year) average discharge between the permitted concentration and 76% of a water quality-based permit limit should demonstrate a coefficient of variation (ratio of standard deviation to average) of 20% or less. An additional safeguard should stipulate that parameters which showed any exceedance of the monthly average limitation during the two year averaging period would not be subject to

monitoring reductions. It should be noted that discharges with a long-term average at or near the permit limit have a probability of reporting a violation 50% of the time, regardless of low coefficient of variation or sample size. Reductions may be made as shown in Table 2 below:

Table 2

Ratio of Long Term Effluent Average to Monthly Average Limit 100-76%

Baseline Monitoring	Reduced Monitoring
7/wk	6/wk
6/wk	5/wk
5/wk	4/wk
4/wk	4/wk
3/wk	3/wk
2/wk	2/wk
1/wk	1/wk
2/month	2/month
1/month	1/month

4) Residency Criteria for Continued Participation

- Permittees are expected to maintain the performance levels that were used as the basis for granting monitoring reductions. To remain eligible for these reductions, the permittee may not have any SNC violations for effluent limitations of the parameters for which reductions have been granted or failure to submit DMRs, or may not be subject to a new formal enforcement action. For facilities that do not maintain performance levels, the permitting authority may require increased monitoring in accordance with a Section 308 or 309 Order (or State equivalent).

Special Considerations

Discontinuous data: Monitoring should not be reduced using the methodology described above if effluent data have not been continuously reported over the period of time being considered. Effluent averages from interrupted or discontinuous data sets may not be representative of long-term performance. Monitoring frequencies for discharges that are intermittent or short-term, such as seasonal discharges and highly variable batch processes, should not be assessed or reduced using the methods described in this guidance and would need to be considered on a case-by-case

basis.

Independent/Dependent Control Parameters: The procedures for reductions described in this guidance are intended for effluent parameters which are normally independently controlled by the permittee. That is, for each parameter limited in the permit there should be significantly different control mechanisms/factors--either in the permittee's treatment, pretreatment, or process operations. In situations where there are several parameters, each of which could be used to measure the performance of a given system, it will generally be appropriate to primarily monitor only the best indicator parameter. For example, if a biological treatment system can be evaluated by either BOD, CBOD, COD, or TOC measurements; it would be normally appropriate to require monitoring of only one of these oxygen demanding parameters.

The permitting authority should, therefore, examine the parameters being monitored from each facility during the permit issuance process to establish which parameters are independently controlled and/or which can be used to determine the proper operation of a facility. Monitoring of other parameters can be either eliminated or reduced to a minimum frequency.

Monitoring Frequency "Floor": Current federal NPDES regulations do not establish a monitoring frequency "floor" but do establish a reporting frequency floor of once/per year. The monitoring frequency from which reductions could be made in this guidance is considered to be the level of the monitoring in the existing effective NPDES permit. It is important to recognize that the guidance given in Table I does not advocate any reductions in statistical confidence in the ability of a permitting authority to determine whether or not a permit limit is being violated at reduced monitoring frequencies. The guidance also does not advocate any reductions for parameters that are currently monitored only once/quarter.

The permitting authority may, however, consider other factors specific to the State or facility. For example, a State policy may establish the baseline. If a facility has already been given monitoring reductions due to superior performance, the baseline may be a previous permit. As a point of reference, Federal regulations do not stipulate minimum monitoring frequencies but do require that reporting cannot be less than once per year. Future national guidance may also be used to establish a baseline for monitoring.

Exceptions: The permitting authority may elect to maintain higher monitoring levels in individual situations where there may be a particular interest in human health, endangered species, or a sensitive aquatic environment. An example would be where a permitting authority has assessed water quality problems in a watershed and determined which point and nonpoint sources are particularly critical from the standpoint of protection of aquatic resources (e.g., endangered species) and human health (e.g., drinking water source). The permitting authority may well decide not to reduce monitoring of critical point sources in these instances, while continuing to monitor the overall situation.

Applicability to Minor Facilities: Minor facilities are fully eligible for reductions under this guidance, even though they are not automatically tracked for SNC in the Permits Compliance

System Database. (Avoidance of SNC is one of the minimum criteria that should be met for participation in this program.) However, permitting authorities may apply the SNC criteria on a case-by-case basis to minor facilities in order to allow them to participate in this program based on permit-specific effluent compliance.

Implementation of Guidance: Where EPA is the permitting authority, it would apply this guidance upon permit reissuance, and consider at that time, whether reductions in monitoring and reporting frequencies were appropriate based upon the compliance/enforcement and performance history of the facility. EPA does not possess adequate resources to routinely reopen, modify, and reissue currently effective permits to revise monitoring frequencies. However, individual permitting authorities may elect to reopen and modify permits to reduce monitoring frequencies consistent with this guidance if resources permit.

Limits below Levels of Detection: This guidance does not recommend reductions in monitoring frequencies in cases where stringent water-quality based limits (WQBELs) are below levels of quantitation (the level at which a constituent present in a wastewater sample can be reliably detected and quantified). Permittees with these types of limits will normally be deemed to be in compliance when monitored levels are below the level of quantitation; however, by definition, it is not scientifically possible (until analytical methods improve) to certify that the WQBELs are actually being achieved. Thus, EPA feels it would be inappropriate to develop national guidance establishing reductions from established monitoring frequencies for these types of limits. However, individual permitting authorities may still use their discretion in considering reductions on a case-by-case basis.

Use of Daily Maximum Values: This guidance does not provide a specific methodology for considering daily maximum permit values when considering monitoring/reporting reductions. However, EPA is in the process of implementing a revised definition of SNC that accounts for daily maximum violations. The new definition will be included in the entry criteria of this proposal. In the interim, permitting authorities should consider such situations on a case-by-case basis. There may be concerns over instances where, for example, there are acutely toxic conditions in a receiving water due to violations of daily maximum permit limitations. In such cases, the permitting authority may elect to maintain higher monitoring levels. In addition, it is important to recognize that dischargers who frequently violate daily maximum permit limitations will likely be unable to achieve high levels of performance in monthly average limits and effectively would not be eligible to participate in this program on that basis. In addition, such facilities may also trigger one of the various compliance/enforcement-based entry criteria.

Applicability of this program to indirect users of POTWs: Many elements of the national Pretreatment program parallel the NPDES permit program. In general, therefore, the same overall logic embodied in this guidance may be extended to industrial users of POTWs (IUs), where appropriate. However, EPA has not investigated whether monitoring data of industrial users of POTWs (IUs) can be characterized with similar coefficients of variation. (Tables 3, 4, and 5 were generated for facilities with coefficients of variation of 20%, 60%, and 80%, respectively.)

Where monitoring frequencies are already near the minimum required by regulation (e.g., twice per year for significant industrial users), the reductions in this guidance would not apply. EPA has begun a dialogue among State and EPA Regional Pretreatment Coordinators to more fully discuss possible pilot projects and statistical analyses.

Incentives for Ambient Monitoring: This interim guidance focuses primarily on criteria for reducing reporting and monitoring used for determining compliance with NPDES permit requirements. It is our intention to reduce burdens associated with these activities where good compliance and permitting performance can be demonstrated and maintained. Another important policy direction for EPA and State water programs is the need to focus our resources more effectively on the problems facing individual places. This Community Based Environmental Protection (CBEP) strategy is embodied through our watershed protection approach. One of the most important aspects of a successful watershed protection approach is to get the best possible monitoring information on the conditions, causes and sources of impairment, and relative impact of these sources on the overall health of a watershed and the effectiveness of our control actions in a watershed. The approach described below for obtaining ambient monitoring information from point sources will also help provide important linkages among other important activities such as more comprehensive of our waters under Section 305(b), effluent trading in watersheds, and improved Total Maximum Daily Load (TMDL) analyses.

This information needs to be gathered and used, where available, from a variety of sources, including municipal and industrial point source dischargers. These point sources could provide a great deal of valuable ambient monitoring information that could be very helpful in making better watershed-based decisions. While certain information may be unique to an individual watershed, there needs to be a core group of environmental indicators, such as attainment of designated uses in State water quality standards and fish consumption advisories, that each watershed will need to measure. NPDES dischargers could often provide valuable information to help measure these core indicators of the overall health of the watershed.

Therefore, in order to encourage NPDES dischargers to voluntarily provide this information or collect additional ambient monitoring information, permitting authorities may consider granting additional reductions in compliance reporting and monitoring, over and above the reductions granted based on good performance if permittees agree to collect or provide additional ambient monitoring information. Prior to granting these additional reductions, permitting authorities should reach agreements with the dischargers on how this information will be provided or collected and how it will be used to give all key stakeholders a better picture of the overall health of the affected watershed. The amount of additional reduction will be at the discretion of the permitting authority who should work collaboratively with State and watershed agencies who design and implement monitoring programs to support environmentally based decisions. This closer integration of ambient and compliance monitoring may also be included in EPA/State agreements to support the National Environmental Performance Partnership System (NEPPS).

Finally, any additional reductions provided should be done so in a manner consistent with the

framework and other criteria described in this guidance.

Future Actions

The burden reductions recommended under this guidance will be available immediately. Over the next 12-18 months, EPA will also conduct detailed pilot studies in two States, Louisiana, and Oklahoma, to closely monitor implementation of the guidance. Based on information from these pilot studies and other information, EPA will consider modifications to this interim guidance as appropriate.

Supporting Statistical Study

Effect of Sample Size on Probability of Violation

EPA has done a statistical analysis on the effect of sampling frequency on compliance assessment. The basic premise underlying a performance-based reduction approach is that maintaining a low average discharge relative to the permit limit results in a low probability of the occurrence of a violation for a wide range of sampling frequencies.

The probability of the occurrence of a violation of a monthly average permit limit was calculated. Tables 3, 4 and 5 display the percentage of time that a monthly average permit violation will be reported given sample size and a long-term average to permit ratio. This probability is dependent on the true long-term average of the discharge, the permit limit, and the monthly sampling frequency. The variables of long-term average and permit limit are both reflected in the tables by expressing these as a ratio. Tables 3, 4, and 5 assume a normal distribution of monthly averages and show the effect of altering the assumed coefficient of variation, using 20%, 60%, and 80%, respectively.

Obviously, the best estimate of the true monthly average discharge is obtained by daily sampling. One can assess the true violation rate of a discharge by looking at the probability calculated assuming sampling was done daily (30 times per month). In order to maintain compliance with a permit limit, the long term average level of the discharge must be controlled at a level less than the permit limit. Reducing the sample size, while increasing the probability that a violation will be reported, does not change the underlying probability of reporting a violation associated with a baseline estimate of the monthly average calculated with 30 samples. With a constant performance, the probabilities of reporting a permit violation increase as the sample size is reduced from daily sampling because the variance of the average is inversely proportional to the sample size.

Looking at the true violation rate of a facility sampling daily and operating at 75% of their permit limit, these tables show that the probability of a violation in a given month is 1% or less. If the long-term average discharge is 65% of the permit limit, the true percentage of violation is less than 1%. As sample size decreases for a given discharge/limit ratio, the expected percentage of time that the average of the samples collected during the month will exceed the permit limit increases. For example, Table 5 demonstrates that at a ratio of 65%, the expected violation rate is effectively zero. If a subsample of 8 samples per month is taken instead of 30, the facility has a 3% chance of reporting a violation. If only one sample per month is taken, the chances of reporting a violation increase to 25%. The facility performance (true monthly average discharge) has not changed, thus "missed" monthly average violations are not an issue. The probabilities calculated for very low sampling frequencies reflects the risk assumed by the discharge operator that monthly average violations will be reported when in fact the process average is under permit limit. If facility performance degrades during the permit term and sampling has been reduced, it can be seen that the facility will have probability of reporting violations at a higher rate, even if the long-term average is still below the permit limit. An example will illustrate this point. Table 5 shows that if a facility was judged to be at 75% of their permit limit and reduced sampling from 16 to 12 times per month, the probability of violation would change from approximately 5% to

7%. If the long-term average performance degraded to 90% of the permit limit, the 12 monthly samples would yield expected monthly average permit violations 32% of the time instead of 29% of the time if 16 samples were collected.

Table 5 shows probabilities calculated using a more conservative assumption of 80% coefficient of variation. The results show that facilities with a long term average of less than or equal to 75% have essentially no chance of violating a monthly average limit, hence facilities with this performance would be good candidates for performance-based monitoring reductions. The reductions in Table 1 were designed to maintain approximately the same level of reported violations as that experienced with their current (baseline) sampling.

Table 3

Probability of Reporting Monthly Average Permit Violations at 20% Effluent Variability (CV = 0.20; Normal Distribution)

	Monthly Sample Size									
[1]LTA/Permit	30	28	24	20	16	12	8	4	2	1
100%	**50%**	**50%**	**50%**	**50%**	**50%**	**50%**	**50%**	**50%**	**50%**	**50%**
95%	7%	8%	10%	12%	15%	18%	23%	30%	35%	40%
90%	0%	0%	0%	1%	1%	3%	6%	13%	22%	29%
85%	0%	0%	0%	0%	0%	0%	1%	4%	11%	19%
80%	0%	0%	0%	0%	0%	0%	0%	1%	4%	11%
75%	0%	0%	0%	0%	0%	0%	0%	0%	1%	5%
70%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%
65%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
60%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
55%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
50%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
40%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
20%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

[1] Ratio of calculated average of at least 2 years of effluent data to monthly average permit limit.

Table 4

Probability of Reporting Monthly Average Permit Violations at 60% Effluent Variability (CV = 0.60; Normal Distribution)

	Monthly Sample Size									
[1]LTA/Permit	30	28	24	20	16	12	8	4	2	1
100%	**50%**	**50%**	**50%**	**50%**	**50%**	**50%**	**50%**	**50%**	**50%**	**50%**
95%	32%	32%	33%	35%	36%	38%	40%	43%	45%	47%
90%	16%	16%	18%	20%	23%	26%	30%	36%	40%	43%
85%	5%	6%	7%	9%	12%	15%	20%	28%	34%	38%
80%	1%	1%	2%	3%	5%	7%	12%	20%	28%	34%
75%	0%	0%	0%	1%	1%	3%	6%	13%	22%	29%
70%	0%	0%	0%	0%	0%	1%	2%	8%	16%	24%
65%	0%	0%	0%	0%	0%	0%	1%	4%	10%	18%
60%	0%	0%	0%	0%	0%	0%	0%	1%	6%	13%
55%	0%	0%	0%	0%	0%	0%	0%	0%	3%	9%
50%	0%	0%	0%	0%	0%	0%	0%	0%	1%	5%
40%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%
30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
20%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

[1] Ratio of calculated average of at least 2 years of effluent data to monthly average permit limit.

Table 5

Probability of Reporting Monthly Average Permit Violations at 80% Effluent Variability (CV = 0.80; Normal Distribution)

	Monthly Sample Size									
[1]LTA/Permit	30	28	24	20	16	12	8	4	2	1
100%	**50%**	**50%**	**50%**	**50%**	**50%**	**50%**	**50%**	**50%**	**50%**	**50%**
95%	36%	36%	37%	38%	40%	41%	43%	45%	46%	47%
90%	22%	23%	25%	27%	29%	32%	35%	39%	42%	44%
85%	11%	12%	14%	16%	19%	22%	27%	33%	38%	41%
80%	4%	5%	6%	8%	11%	14%	19%	27%	33%	38%
75%	1%	1%	2%	3%	5%	7%	12%	20%	28%	34%
70%	0%	0%	0%	1%	2%	3%	6%	14%	22%	30%
65%	0%	0%	0%	0%	0%	1%	3%	9%	17%	25%
60%	0%	0%	0%	0%	0%	0%	1%	5%	12%	20%
55%	0%	0%	0%	0%	0%	0%	0%	2%	7%	15%
50%	0%	0%	0%	0%	0%	0%	0%	1%	4%	11%
40%	0%	0%	0%	0%	0%	0%	0%	0%	0%	3%
30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
20%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

[1] Ratio of calculated average of at least 2 years of effluent data to monthly average permit limit.

Detailed Protocol for Calculating Probability of Reporting Permit Violations

Calculation of probabilities for Tables 3-5

Probability distributions may be used to model effluent data and assess the probability of permit violations. The models provide a logical and consistent methodological framework for using observed performance data to assess permit limitations in an objective manner. The goal of the limitations is to establish performance levels that enforce good treatment and ensure that water quality objectives are met. In deriving limitations, sufficient allowance for variation in treatment performance is provided such that a well-operated treatment system should be capable of compliance with the limitations at all times. In using probability models as the basis for limits, it is necessary to select a percentile value such that, within the context of the model, any meaningful limit will have a non-zero probability of being exceeded.

The results shown in the tables here are derived from probability distribution functions that may be used to model effluent data. That is, the processes are assumed to operate over time in a manner that is consistent with past performance. No intervention to change the process or exert more or less control over the discharge is assumed.

Calculation of the probability that a reported permit violation will occur depends upon: the number of individual samples taken during the month, the long-term discharge level, the variance of the discharge concentrations, the probability distribution of the individual samples during the month, and the permit limit. There are two probability distributions commonly used to model effluent data: the lognormal distribution and the normal distribution. The lognormal distribution usually provides a good fit to data sets comprised of individual effluent measurements because such data typically have two critical lognormal characteristics: they are positive valued and positively skewed. Positive skewness means that the data are characterized by a tendency for a preponderance of measurements in the lower range of possible values with relatively fewer measurements stretched out over a wider range of possible upper values. The lognormal also has the property that the logarithms (natural or base 10) of the data are normally distributed. The normal distribution has the well-known "bell shape" and is mathematically straightforward so that working with the logarithms of effluent data is relatively uncomplicated.

The asymptotic distribution of sample averages is normally distributed. That is, the average of a sample of individual measurements will have a distribution that is approximately normally distributed regardless of the distribution of the individual measurements. The quality of the approximation depends on several factors including the number of individual measurements being averaged and the form of the underlying distribution. Although individual effluent measurements are rarely normally distributed, it is reasonable in many situations to approximate the distribution of the averages of effluent measurements with a normal distribution and thus the normal approximation is used in many cases as a model for monthly average effluent limitations. The results in Tables 3-5 are based on the assumption of a normal distribution for the averages of effluent measurements. Extensive discussion on the statistical modelling of effluent data and methodology for setting effluent limitations are contained in EPA's 1991 Technical Support Document for Water Quality-based Toxics Control (TSD).

The results of calculating probability of a reported violation of a monthly average permit limit are shown in Tables 3 through 5 under different conditions. The purpose of these tables is to provide some insight into the effects of changing monitoring requirements. The probability of exceeding the monthly limit when the long-term average of the discharge is at the desired value can be thought of as the Type I error rate (alpha-level) of the monitoring program. When the long-term average exceeds the desired limit, the probability of exceeding the monthly limit is now the monitoring program's ability to detect violation increases if the long-term average increases over the desired level. It should be understood that if permit limits are held constant and performance measures such as long term average discharge and variability of treatment do not change, then reducing the number of monitoring measurements used to calculate the monthly average causes the probability of a violation to increase for all values of the long term average less than the monthly average permit limit. This has a two-fold effect: 1) the chances of reporting a violation even when the long term average is less than the desired level (the Type I error rate) go up 2) the sensitivity (ability to detect violations) of the program increases. The Tables also show that if the average discharge level is held well below the monthly average limit, the chances of a violation are small. The thee tables reflect three different levels of variation in the underlying daily data as measured by the coefficient of variation. The coefficient of variation (CV) is the ratio of the standard deviation of the distribution to the mean and is often expressed as a percentage. The CV is a convenient measure for summarizing the relative variability in a data set. The results in Tables 3,4, and 5 use CVs of 20%, 60% and 80% respectively. A coefficient of variation of 60% was used in the TSD to describe a typical level of variation for lognormally distributed effluent data. CVs of 80% and 20% were used to show the effects of higher and lower levels of variability.

The probability distribution of the average of N daily measurements taken during a month, M_N, is given by the following normal probability density function:

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where μ is the mean or long term average, and σ is the standard deviation of the daily discharges. If μ_1 is the maximum monthly average allowed by the permit, then the probability that the monthly average exceeds the permit maximum is given by $P(M_N>\mu_1)$. Using simple algebra this probability can be rewritten as:

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where $\Phi(.)$ is the standard normal cumulative probability function (the Microsoft®Excel built-in function NORMDIST).

Since

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where C is the coefficient of variation, then the probability of a monthly average exceeding the maximum allowable can be calculated using C, N, and the ratio of the long-term average to the maximum allowable monthly average using NORMDIST. This is how the values in Tables 3, 4, and 5 were calculated.

Alternate approaches to probability calculations:

The probabilities in Tables 3-5 were calculated with the assumption that the distribution of the sample means is normal. Individual sample values are generally best fit to a lognormal distribution. As discussed in the TSD, the mean of small samples from a lognormal distribution is in most cases approximately lognormal. Probabilities can be calculated assuming a lognormal distribution by two different methods, a Monte Carlo technique and the Microsoft Excel built-in function LOGNORMDIST. The resulting probabilities will be very close to those in the normal distribution table for the sample sizes and discharge levels under consideration for monitoring reductions, although the probabilities calculated from these two distributions may not be comparable for all sample sizes and all discharge levels.

The statistical evaluations used in this analysis are intended for use only to illustrate the effect and benefits of this strategy, alternative statistical techniques and approaches may be utilized in other situations.

NPDES Burden Reduction Analysis

The analysis to estimate the NPDES burden reduction used the SAS Language and data from the Permit Compliance System (PCS) database. The procedure, assumptions, and results are summarized below:

- The universe for this study was all major facilities with measurement data in PCS (6,477) for the two-year evaluation period of 1/93 to 12/94. This evaluation period was chosen in order to have as large a universe as possible since the Commonwealth of Virginia and the State of California have not entered measurement data into PCS for 1995.

- The facility entry criteria for enforcement history were approximated by eliminating permittees for consideration that have effluent violations for either an active formal judicial action or an active formal administrative order (AO) for 1995.

- The parameter entry criterion, evaluated per outfall, was the elimination of parameters for consideration that have had any Significant Non-Compliance (SNC) violations during the two-year evaluation period.

- For each parameter eligible for burden reduction, the long-term average (LTA) for the two-year period was calculated and compared to the monthly average limit.

- The amount of burden reduction was calculated to be the ratio of the difference between the monthly average limit and the LTA divided by the monthly average limit. This approximates the reduction presented in Table 1 of the guidance for LTA to monthly average limit ratios up to 75%.

- No reduction for parameters not meeting the 75% ratio threshold.

Table 6

	Burden Reduction
Municipal	27%
Non-municipal	24%
Total	**26%**

CHAIN OF CUSTODY FORM

Energy Technical Services, LLC
Northport Office - 14176 Highway 69 N, Northport, AL 35473 205 330-7994
Mobile Office - 5270 Hamilton Blvd, Theodore, AL 36582 251-288-3766
www.energytechavc.com Fax 866 594-8920

ETS ID # 180522R001

Client: West Rock	Sampled By: TWB / HH
Contact: Wayne Baker	Turnaround: Rush By:
Phone: 334-341-9824	*Compositor Start: Date NA Time
Address: 28270 Highway 80 W	*Compositor End: Date Time
City, State: Demopolis, AL	Comments:

Project: EPA Form 2F Permit Renewal

Sample ID	Sample Date	Sample Time	Sample Method: Comp*	Sample Method: Grab			Preservation*	BOD, TSS,	COD, PO4, NH3, TKN,	O&G	pH, Temperature										*Preservation Types
							# of Containers														Ice
								ICE	H2SO4	H2SO4	None										H2SO4
								P-1	P-1	G-1	Immediatley										HNO3
DSN006 ~~007 Outfall~~	5/22	8:15		x				x	x	x	x										HCl
																					NaOH
																					NaThio
																					Other
																					None
																					Bottle
																					G-Glass
																					P-Plastic

Relinquished by: Wayne Baker (Sign) Date/Time: 5/22/18 3:15pm

Relinquished by: (Sign) Date/Time:

Relinquished by: (Sign) Date/Time:

Received by: (Sign) Date/Time: 5/22/18 1515

Received by: (Sign) Date/Time:

Received by: (Sign) Date/Time:

Was Shipped Container intact when received? (Yes) No

Were samples properly preserved? (Yes) No

pH:

DO:

Seals Intact: (Yes) No Initials: CA

Sample Temp: 4 deg C Initials: CA

Shipper Tracking Number:

Comments:

Revised 02-15

ETS
Energy Technical Services, LLC
Tuscaloosa, Alabama 205.330.7994
Mobile, Alabama 251.288.3766

Analytical Report

Customer: West Rock
28270 Highway 80 West
Demopolis, AL 36732

Date/Time collected: 5/22/18 8:15
Sampled by: Sampler, Client
Sample type: Grab
Customer ID: DSN006
PO: n/a

Project Name: EPA Permit Renewal
ETS Sample ID: 180522R001
Location: DSN006

Analyte	Analysis Started Date/Time/Analyst	Result	Units	Det Lim	Dil. Factor	Method
Ammonia (NH3)	6/7/2018 10:00 ne	0.13	mg/L	0.05	1	EPA 350.1
Biochemical Oxygen Demand, BOD	5/24/2018 12:30 mfh	< 2.0	mg/L	2	1	SM 5210 B 2001
Chemical Oxygen Demand (COD)	5/25/2018 10:00 bh	22	mg/L	5	1	SM 5220 D 1997
Oil & Grease (O&G)	5/30/2018 09:00 ew	2.3	mg/L	1	1	EPA 1664B 2010
pH-Lab	5/23/2018 12:20 bh	7.51	S. U.	1	1	SM 4500-H+B 2000
Phosphorus, Total (PO4)	5/24/2018 11:30 bh	0.08	mg/L	0.05	1	EPA 365.3 1978
Temperature, C	5/23/2018 12:09 bh	22.2	C	0.01	1	SM 2550 B 2000
Total Keldjahl Nitrogen (TKN)	5/25/2018 10:00 bh	1.92	mg/L	0.1	1	Hach 10242
Total Suspended Solids, TSS	5/23/2018 09:53 mfh	14.0	mg/L	1	1	USGS I 3765-85

Note: Samples were analyzed in general accordance with the following Method References:
-Code of Federal Regulations, Title 40, Part 136
-Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846
-ASTM Annual Standards
-Alabama Department of Environmental Management Lab Certification # 41720

Date: 7/3/2018

report sent via email

CHAIN OF CUSTODY FORM

Energy Technical Services, LLC
Northport Office - 14176 Highway 69 N, Northport, AL 35473 205 330-7994
Mobile Office - 5270 Hamilton Blvd, Theodore, AL 36582 251-288-3766
www.energytechsvc.com Fax 866 594-8920

ETS ID # 180522R002

Client: West Rock	Sampled By: TWB / H.H
Contact: Wayne Baker	Turnaround: Rush By:
Phone: 334-341-9824	*Compositor Start: Date 5/21/18 Time 7:00AM
Address: 28270 Highway 80 W	*Compositor End: Date 5/22/18 Time 7:00 AM
City, State: Demopolis, AL	Comments:

Project: EPA Form 2C Permit Renewal

Sample ID	Sample Date	Sample Time	Comp*	Grab				BOD, TSS	pH, Temperature	COD, NH3, TKN, TOC, NO2-NO3, PO4	CN	Sb, As, Be, Cd, Cr, Cu, Pb, Ni, Se, Ag, Tl, Zn, Al, Ba, Fe, Mg, Mn, Ti, Hg	ADMI Color, SO4, Bromide, Surfactants (MBAS)	VOC's (624)	SVOC's (625)	Total Phenols					*Preservation Types
							Preservation*	ICE	none	H2SO4	NaOH	HNO3	ICE	ICE	Ice	Ice					Ice
							# of Containers	P-1	Immediatley	P-2	P-1	P-1	P-2	G-4	G-2	G-1					H2SO4
DSN 005	5/21/18		x					~~x~~		x		x	x	x	x						HNO3
"	5/22	9:50A		x					x		x					x					HCl
																					NaOH
																					NaThio
																					Other
																					None
																					Bottle
																					G-Glass
																					P-Plastic

Relinquished by: Wayne Baker (Sign) Date/Time: 5/22/18 3:16PM — Received by: [signature] (Sign) Date/Time: 5/22/18 1516

Relinquished by: (Sign) Date/Time: — Received by: (Sign) Date/Time:

Relinquished by: (Sign) Date/Time: — Received by: (Sign) Date/Time:

Was Shipped Container intact when received? (Yes) No — Seals Intact: (Yes) No — Initials: GL

Were samples properly preserved? (Yes) No — Sample Temp: 4 deg C — Initials: [initials]

pH: ______

DO: ______

Shipper Tracking Number:

Comments:

Revised 02-15

ETS
Energy Technical Services, LLC
Tuscaloosa, Alabama 205.330.7994
Mobile, Alabama 251.288.3766

Analytical Report

Customer: West Rock
28270 Highway 80 West
Demopolis, AL 36732

Date/Time collected: 5/22/18 9:50
Sampled by: Sampler, Client
Sample type: Grab/Composite
Customer ID: DSN005
PO: n/a

Project Name: EPA Permit Renewal
ETS Sample ID: 180522R002
Location: DSN005

Analyte	Analysis Started Date/Time/Analyst	Result	Units	Det Lim	Dil. Factor	Method
624 Volatile Organics	6/12/2018 13:32 ta	ROL	ug/L	0.1	1	EPA 624
625 Semi-Volatile Organics	6/12/2018 13:32 ta	ROL	ug/L	0.1	1	EPA 625
ADMI Color	5/25/2018 08:30 ew	1214	ADMI Units	1	1	SM 2120 F
Aluminum, Total or Recoverable	5/25/2018 15:00 bh	1.143	mg/L	0.005	1	EPA 200.7
Ammonia (NH3)	6/7/2018 10:00 ne	1.15	mg/L	0.05	1	EPA 350.1
Antimony, Total or Recoverable	5/25/2018 12:00 bh	< 0.005	mg/L	0.005	1	EPA 200.7
Arsenic, Total or Recoverable	5/25/2018 12:00 bh	0.076	mg/L	0.005	1	EPA 200.7
Barium	5/25/2018 12:00 bh	0.043	mg/L	0.005	1	EPA 200.7
Beryllium, Total or Recoverable	5/25/2018 12:00 bh	< 0.005	mg/L	0.005	1	EPA 200.7
Bromide	6/12/2018 20:30 gs	< 10.00	mg/L	0.5	1	EPA 300.0
Cadmium, Total or Recoverable	5/25/2018 12:00 bh	< 0.005	mg/L	0.005	1	EPA 200.7
Chemical Oxygen Demand (COD)	5/25/2018 10:00 bh	106	mg/L	5	1	SM 5220 D 1997
Chromium, Total or Recoverable	5/25/2018 12:00 bh	< 0.005	mg/L	0.005	1	EPA 200.7
Copper, Total or Recoverable	5/25/2018 12:00 bh	0.006	mg/L	0.005	1	EPA 200.7
Cyanide, Total	6/5/2018 09:00 ew	< 0.01	mg/L	0.01	1	SM 4500 CN C&E
Iron, Total or Recoverable	5/25/2018 15:00 bh	0.892	mg/L	0.005	1	EPA 200.7
Lead, Total or Recoverable	5/25/2018 12:00 bh	< 0.005	mg/L	0.005	1	EPA 200.7
Magnesium, Total or Recoverable	5/25/2018 12:00 bh	3.040	mg/L	0.005	1	EPA 200.7
Manganese, Total or Recoverable	5/25/2018 12:00 bh	0.187	mg/L	0.005	1	EPA 200.7
Mercury	5/24/2018 13:40 bh	< 0.001	mg/L	0.001	1	EPA 245.1
MBAS	5/25/2018 02:00 gs	< 0.20	mg/L	0.2	1	SM 5540 C 2000
Nickel, Total or Recoverable	5/25/2018 12:00 bh	< 0.005	mg/L	0.005	1	EPA 200.7
Nitrite plus Nitrate	5/24/2018 15:00 bh	0.55	mg/L	0.05	1	EPA 353.2 1993
Phenols, Total	6/1/2018 15:51 ta	0.0546	mg/L	0.05	1	EPA 420.4
pH-Lab	5/23/2018 12:20 bh	8.56	S. U.	1	1	SM 4500-H+B 2000
Phosphorus, Total (PO4)	5/24/2018 11:30 bh	3.04	mg/L	0.05	1	EPA 365.3 1978
Selenium, Total or Recoverable	5/25/2018 12:00 bh	<0.005	mg/L	0.005	1	EPA 200.7
Silver, Total or Recoverable	5/25/2018 12:00 bh	< 0.005	mg/L	0.005	1	EPA 200.7
Sulfate	6/12/2018 20:30 gs	98.45	mg/L	1	1	EPA 300.0
Temperature, C	5/23/2018 12:20 bh	24.8	C	0.01	1	SM 2550 B 2000
Thallium, Total or Recoverable	5/25/2018 12:00 bh	< 0.005	mg/L	0.005	1	EPA 200.7
Titanium, Total or Recoverable	5/25/2018 15:00 bh	<0.005	mg/L	0.005	1	EPA 200.7
Total Keldjahl Nitrogen (TKN)	5/25/2018 10:00 bh	0.43	mg/L	0.1	1	Hach 10242
Total Organic Carbon	5/25/2018 09:06 gs	60.0	mg/L	0.5	1	SM 5310 C
Zinc, Total or Recoverable	5/25/2018 12:00 bh	0.012	mg/L	0.005	1	EPA 200.7

Note: Samples were analyzed in general accordance with the following Method References:
-Code of Federal Regulations, Title 40, Part 136
-Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846
-ASTM Annual Standards
-Alabama Department of Environmental Management Lab Certification # 41720

Date: 7/3/2018

report sent via email

Client Sample Results

Energy Technical Services LLC

Project/Site: Stormwater / Permit Renewal

Client Sample ID: 180522R002
Date Collected: 05/22/18 07:00
Date Received: 05/25/18 13:00

Lab Sample ID: 490-152751-1
Matrix: Water

Method: 624 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		50.0		ug/L			05/30/18 20:10	1
Benzene	ND		1.00		ug/L			05/30/18 20:10	1
Bromochloromethane	ND		1.00		ug/L			05/30/18 20:10	1
Bromodichloromethane	ND		1.00		ug/L			05/30/18 20:10	1
Bromoform	ND		1.00		ug/L			05/30/18 20:10	1
Bromomethane	ND		1.00		ug/L			05/30/18 20:10	1
2-Butanone (MEK)	ND		10.0		ug/L			05/30/18 20:10	1
Carbon disulfide	1.03		1.00		ug/L			05/30/18 20:10	1
Carbon tetrachloride	ND		1.00		ug/L			05/30/18 20:10	1
Chlorobenzene	ND		1.00		ug/L			05/30/18 20:10	1
Chloroethane	ND		1.00		ug/L			05/30/18 20:10	1
Chloroform	ND		1.00		ug/L			05/30/18 20:10	1
Chloromethane	ND		1.00		ug/L			05/30/18 20:10	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			05/30/18 20:10	1
cis-1,3-Dichloropropene	ND		1.00		ug/L			05/30/18 20:10	1
Dibromochloromethane	ND		1.00		ug/L			05/30/18 20:10	1
1,2-Dibromoethane (EDB)	ND		1.00		ug/L			05/30/18 20:10	1
1,2-Dichlorobenzene	ND		1.00		ug/L			05/30/18 20:10	1
1,3-Dichlorobenzene	ND		1.00		ug/L			05/30/18 20:10	1
1,4-Dichlorobenzene	ND		1.00		ug/L			05/30/18 20:10	1
Dichlorodifluoromethane	ND		1.00		ug/L			05/30/18 20:10	1
1,1-Dichloroethane	ND		1.00		ug/L			05/30/18 20:10	1
1,2-Dichloroethane	ND		1.00		ug/L			05/30/18 20:10	1
1,1-Dichloroethene	ND		1.00		ug/L			05/30/18 20:10	1
1,2-Dichloropropane	ND		1.00		ug/L			05/30/18 20:10	1
1,4-Dioxane	ND		100		ug/L			05/30/18 20:10	1
Ethylbenzene	ND		1.00		ug/L			05/30/18 20:10	1
2-Hexanone	ND		5.00		ug/L			05/30/18 20:10	1
Isopropylbenzene	ND		1.00		ug/L			05/30/18 20:10	1
Methyl acetate	ND		10.0		ug/L			05/30/18 20:10	1
Methylcyclohexane	ND		5.00		ug/L			05/30/18 20:10	1
Methylene Chloride	ND		5.00		ug/L			05/30/18 20:10	1
4-Methyl-2-pentanone (MIBK)	ND		5.00		ug/L			05/30/18 20:10	1
Methyl tert-butyl ether	ND		1.00		ug/L			05/30/18 20:10	1
Styrene	ND		1.00		ug/L			05/30/18 20:10	1
1,1,2,2-Tetrachloroethane	ND		1.00		ug/L			05/30/18 20:10	1
Tetrachloroethene	ND		1.00		ug/L			05/30/18 20:10	1
Toluene	ND		1.00		ug/L			05/30/18 20:10	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			05/30/18 20:10	1
trans-1,3-Dichloropropene	ND		1.00		ug/L			05/30/18 20:10	1
1,2,3-Trichlorobenzene	ND		1.00		ug/L			05/30/18 20:10	1
1,2,4-Trichlorobenzene	ND		1.00		ug/L			05/30/18 20:10	1
1,1,1-Trichloroethane	ND		1.00		ug/L			05/30/18 20:10	1
1,1,2-Trichloroethane	ND		1.00		ug/L			05/30/18 20:10	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.00		ug/L			05/30/18 20:10	1
Vinyl chloride	ND		1.00		ug/L			05/30/18 20:10	1
Xylenes, Total	ND		3.00		ug/L			05/30/18 20:10	1

Client Sample Results

Energy Technical Services LLC

Project/Site: Stormwater / Permit Renewal

Client Sample ID: 180522R002
Date Collected: 05/22/18 07:00
Date Received: 05/25/18 13:00

Lab Sample ID: 490-152751-1
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*105*		*76 - 124*		*05/30/18 20:10*	*1*
Dibromofluoromethane (Surr)	*102*		*67 - 129*		*05/30/18 20:10*	*1*
1,2-Dichloroethane-d4 (Surr)	*99*		*62 - 143*		*05/30/18 20:10*	*1*
Toluene-d8 (Surr)	*103*		*60 - 144*		*05/30/18 20:10*	*1*

Method: 625 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		9.35		ug/L		05/29/18 17:30	05/30/18 19:07	1
Acenaphthylene	ND		9.35		ug/L		05/29/18 17:30	05/30/18 19:07	1
Anthracene	ND		9.35		ug/L		05/29/18 17:30	05/30/18 19:07	1
Benzidine	ND		93.5		ug/L		05/29/18 17:30	05/30/18 19:07	1
Benzo[a]anthracene	ND		9.35		ug/L		05/29/18 17:30	05/30/18 19:07	1
Benzo[a]pyrene	ND		9.35		ug/L		05/29/18 17:30	05/30/18 19:07	1
Benzo[b]fluoranthene	ND		9.35		ug/L		05/29/18 17:30	05/30/18 19:07	1
Benzo[g,h,i]perylene	ND		9.35		ug/L		05/29/18 17:30	05/30/18 19:07	1
Benzo[k]fluoranthene	ND		9.35		ug/L		05/29/18 17:30	05/30/18 19:07	1
Bis(2-chloroethoxy)methane	ND		9.35		ug/L		05/29/18 17:30	05/30/18 19:07	1
Bis(2-chloroethyl)ether	ND		9.35		ug/L		05/29/18 17:30	05/30/18 19:07	1
bis (2-chloroisopropyl) ether	ND		9.35		ug/L		05/29/18 17:30	05/30/18 19:07	1
Bis(2-ethylhexyl) phthalate	ND		9.35		ug/L		05/29/18 17:30	05/30/18 19:07	1
Butyl benzyl phthalate	ND		9.35		ug/L		05/29/18 17:30	05/30/18 19:07	1
4-Chloro-3-methylphenol	ND		9.35		ug/L		05/29/18 17:30	05/30/18 19:07	1
2-Chloronaphthalene	ND		9.35		ug/L		05/29/18 17:30	05/30/18 19:07	1
2-Chlorophenol	ND		9.35		ug/L		05/29/18 17:30	05/30/18 19:07	1
4-Chlorophenyl phenyl ether	ND		9.35		ug/L		05/29/18 17:30	05/30/18 19:07	1
Chrysene	ND		9.35		ug/L		05/29/18 17:30	05/30/18 19:07	1
Dibenz(a,h)anthracene	ND		9.35		ug/L		05/29/18 17:30	05/30/18 19:07	1
1,2-Dichlorobenzene	ND		9.35		ug/L		05/29/18 17:30	05/30/18 19:07	1
1,3-Dichlorobenzene	ND		9.35		ug/L		05/29/18 17:30	05/30/18 19:07	1
1,4-Dichlorobenzene	ND		9.35		ug/L		05/29/18 17:30	05/30/18 19:07	1
3,3'-Dichlorobenzidine	ND		9.35		ug/L		05/29/18 17:30	05/30/18 19:07	1
2,4-Dichlorophenol	ND		9.35		ug/L		05/29/18 17:30	05/30/18 19:07	1
Diethyl phthalate	ND		9.35		ug/L		05/29/18 17:30	05/30/18 19:07	1
2,4-Dimethylphenol	ND		9.35		ug/L		05/29/18 17:30	05/30/18 19:07	1
Dimethyl phthalate	ND		9.35		ug/L		05/29/18 17:30	05/30/18 19:07	1
Di-n-butyl phthalate	ND		9.35		ug/L		05/29/18 17:30	05/30/18 19:07	1
4,6-Dinitro-2-methylphenol	ND		23.4		ug/L		05/29/18 17:30	05/30/18 19:07	1
2,4-Dinitrophenol	ND		23.4		ug/L		05/29/18 17:30	05/30/18 19:07	1
2,4-Dinitrotoluene	ND		9.35		ug/L		05/29/18 17:30	05/30/18 19:07	1
2,6-Dinitrotoluene	ND		9.35		ug/L		05/29/18 17:30	05/30/18 19:07	1
Di-n-octyl phthalate	ND		9.35		ug/L		05/29/18 17:30	05/30/18 19:07	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.35		ug/L		05/29/18 17:30	05/30/18 19:07	1
Fluoranthene	ND		9.35		ug/L		05/29/18 17:30	05/30/18 19:07	1
Fluorene	ND		9.35		ug/L		05/29/18 17:30	05/30/18 19:07	1
Hexachlorobenzene	ND		9.35		ug/L		05/29/18 17:30	05/30/18 19:07	1
Hexachlorobutadiene	ND		9.35		ug/L		05/29/18 17:30	05/30/18 19:07	1
Hexachlorocyclopentadiene	ND		9.35		ug/L		05/29/18 17:30	05/30/18 19:07	1
Hexachloroethane	ND		9.35		ug/L		05/29/18 17:30	05/30/18 19:07	1
Indeno[1,2,3-cd]pyrene	ND		9.35		ug/L		05/29/18 17:30	05/30/18 19:07	1

Client Sample Results

Energy Technical Services LLC

Project/Site: Stormwater / Permit Renewal

Client Sample ID: 180522R002
Date Collected: 05/22/18 07:00
Date Received: 05/25/18 13:00

Lab Sample ID: 490-152751-1
Matrix: Water

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isophorone	ND		9.35		ug/L		05/29/18 17:30	05/30/18 19:07	1
Naphthalene	ND		9.35		ug/L		05/29/18 17:30	05/30/18 19:07	1
Nitrobenzene	ND		9.35		ug/L		05/29/18 17:30	05/30/18 19:07	1
2-Nitrophenol	ND		9.35		ug/L		05/29/18 17:30	05/30/18 19:07	1
4-Nitrophenol	ND		9.35		ug/L		05/29/18 17:30	05/30/18 19:07	1
N-Nitrosodimethylamine	ND		9.35		ug/L		05/29/18 17:30	05/30/18 19:07	1
N-Nitrosodi-n-propylamine	ND		9.35		ug/L		05/29/18 17:30	05/30/18 19:07	1
n-Nitrosodiphenylamine(as diphenylamine)	ND		9.35		ug/L		05/29/18 17:30	05/30/18 19:07	1
Pentachlorophenol	ND		9.35		ug/L		05/29/18 17:30	05/30/18 19:07	1
Phenanthrene	ND		9.35		ug/L		05/29/18 17:30	05/30/18 19:07	1
Phenol	ND		9.35		ug/L		05/29/18 17:30	05/30/18 19:07	1
Pyrene	ND		9.35		ug/L		05/29/18 17:30	05/30/18 19:07	1
1,2,4-Trichlorobenzene	ND		9.35		ug/L		05/29/18 17:30	05/30/18 19:07	1
2,4,6-Trichlorophenol	ND		9.35		ug/L		05/29/18 17:30	05/30/18 19:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*54*		*10 - 120*	*05/29/18 17:30*	*05/30/18 19:07*	*1*
2-Fluorophenol	*39*		*29 - 120*	*05/29/18 17:30*	*05/30/18 19:07*	*1*
Nitrobenzene-d5	*53*		*27 - 120*	*05/29/18 17:30*	*05/30/18 19:07*	*1*
Phenol-d5	*33*		*10 - 120*	*05/29/18 17:30*	*05/30/18 19:07*	*1*
Terphenyl-d14	*69*		*13 - 120*	*05/29/18 17:30*	*05/30/18 19:07*	*1*
2,4,6-Tribromophenol	*77*		*10 - 120*	*05/29/18 17:30*	*05/30/18 19:07*	*1*

CHAIN OF CUSTODY FORM

Energy Technical Services, LLC
Northport Office - 14176 Highway 69 N, Northport, AL 35473 205 330-7994
Mobile Office - 5270 Hamilton Blvd, Theodore, AL 36582 251-288-3766
www.energytechsvc.com Fax 866 594-8920

ETS ID # 180522R003

Client: West Rock	Sampled By: Tabb/HH.
Contact: Wayne Baker	Turnaround: Rush By:
Phone: 334-341-9824	*Compositor Start: Date 5/21/18 Time 7:05AM
Address: 28270 Highway 80 W	*Compositor End: Date 5/22/18 Time 7:00 AM
City, State: Demopolis, AL	Comments:

Project: EPA Form 2C Permit Renewal

Sample ID	Sample Date	Sample Time	Sample Method: Comp*	Sample Method: Grab			Preservation*	Analysis Requested: BOD/TSS	pH, Temperature	COD, NH3, TKN, TOC	CN	Sulfide as S	O&G	Sb, As, Be, Cd, Cr, Cu, Pb, Ni, Se, Ag, Tl, Zn, Al, Ba, Fe, Mg, Mn, Tl, Ho	ADMI Color, SO4, Bromide, Surfactants (MBAS)	Total Radium 226, 228 Total Alpha Beta Radioactivity	Pesticides/PCB	VOC's (624)	Total Phenols	SVOC's (625)	*Preservation Types
							Preservation*	ICE	none	H2SO4	NaOH	Zn Acetate	H2SO4	HNO3	ICE	HNO3	Ice	ICE	Ice	Ice	Ice
							# of Containers	P-1	Immediatley	P-2	P-1	P-1	G-1	P-1	P-2	P-3	G-3	G-4	G-1	G-2	H2SO4
DSN 001	5/21/18		x					x		x		x		x	x	x	x	x			HNO3
	5/22/18	9808 AM		x					x		x		x						x	x	HCl
																					NaOH
																					NaThio
																					Other
																					None
																					Bottle
																					G-Glass
																					P-Plastic

Relinquished by: Wayne Baker (Sign) Date/Time: 5/22/18 3:15PM
Relinquished by: (Sign) Date/Time:
Relinquished by: (Sign) Date/Time:

Received by: (Sign) Date/Time: 5/22/18 1515
Received by: (Sign) Date/Time:
Received by: (Sign) Date/Time:

Was Shipped Container Intact when received? Yes No
Were samples properly preserved? Yes No
pH:
OO:

Seals Intact: Yes No Initials:
Sample Temp: 4 deg C Initials:

Shipper Tracking Number:
Comments:

Revised 02-15

ETS
Energy Technical Services, LLC
Tuscaloosa, Alabama 205.330.7994
Mobile, Alabama 251.288.3766

Analytical Report

Customer: West Rock
28270 Highway 80 West
Demopolis, AL 36732

Date/Time collected: 5/22/18 9:08
Sampled by: Sampler, Client
Sample type: Grab/Composite
Customer ID: DSN001
PO: n/a

Project Name: EPA Permit Renewal
ETS Sample ID: 180522R003
Location: DSN001

Analyte	Analysis Started Date/Time/Analyst	Result	Units	Det Lim	Dil. Factor	Method
624 Volatile Organics	6/20/2018 14:43 ta	ROL	ug/L	0.1	1	EPA 624
625 Semi-Volatile Organics	6/20/2018 14:43 ta	ROL	ug/L	0.1	1	EPA 625
ADMI Color	5/25/2018 08:30 ew	1997	ADMI Units	1	1	SM 2120 F
Aluminum, Total or Recoverable	5/25/2018 15:00 bh	1.059	mg/L	0.005	1	EPA 200.7
Ammonia (NH3)	6/7/2018 10:00 ne	1.85	mg/L	0.05	1	EPA 350.1
Antimony, Total or Recoverable	5/25/2018 12:00 bh	< 0.005	mg/L	0.005	1	EPA 200.7
Arsenic, Total or Recoverable	5/25/2018 12:00 bh	< 0.005	mg/L	0.005	1	EPA 200.7
Barium	5/25/2018 12:00 bh	0.087	mg/L	0.005	1	EPA 200.7
Beryllium, Total or Recoverable	5/25/2018 12:00 bh	< 0.005	mg/L	0.005	1	EPA 200.7
Bromide	6/12/2018 20:30 gs	< 10.00	mg/L	10	1	EPA 300.0
Cadmium, Total or Recoverable	5/25/2018 12:00 bh	< 0.005	mg/L	0.005	1	EPA 200.7
Chemical Oxygen Demand (COD)	5/30/2018 10:38 bh	34	mg/L	5	1	SM 5220 D 1997
Chromium, Total or Recoverable	5/25/2018 12:00 bh	< 0.005	mg/L	0.005	1	EPA 200.7
Copper, Total or Recoverable	5/25/2018 12:00 bh	< 0.005	mg/L	0.005	1	EPA 200.7
Cyanide, Total	6/5/2018 09:00 ew	< 0.01	mg/L	0.01	1	SM 4500 CN C&E
Iron, Total or Recoverable	5/25/2018 15:00 bh	0.646	mg/L	0.005	1	EPA 200.7
Lead, Total or Recoverable	5/25/2018 12:00 bh	0.005 L	mg/L	0.005	1	EPA 200.7
Magnesium, Total or Recoverable	5/25/2018 12:00 bh	4.564	mg/L	0.005	1	EPA 200.7
Manganese, Total or Recoverable	5/25/2018 12:00 bh	0.739	mg/L	0.005	1	EPA 200.7
Mercury	5/24/2018 13:40 bh	< 0.001	mg/L	0.001	1	EPA 245.1
MBAS	5/25/2018 14:00 gs	< 0.20	mg/L	0.2	1	SM 5540 C 2000
Nickel, Total or Recoverable	5/25/2018 12:00 bh	<0.005	mg/L	0.005	1	EPA 200.7
Oil & Grease (O&G)	5/30/2018 09:00 ew	1.7	mg/L	1	1	EPA 1664B 2010
PCB	6/20/2018 14:43 ta	ROL	ug/L	0.001	1	EPA 608
608 Pesticides	6/20/2018 14:43 ta	ROL	ug/L	0.1	1	EPA 608
Phenols, Total	6/1/2018 15:52 ta	0.788	mg/L	0.05	1	EPA 420.4
pH-Lab	5/23/2018 12:20 bh	8.20	S. U.	1	1	SM 4500-H+B 2000
Selenium, Total or Recoverable	5/25/2018 12:00 bh	<0.005	mg/L	0.005	1	EPA 200.7
Silver, Total or Recoverable	5/25/2018 12:00 bh	< 0.005	mg/L	0.005	1	EPA 200.7
Sulfate	6/12/2018 20:30 gs	678.44	mg/L	1	1	EPA 300.0
Sulfide, as Sulfur	5/23/2018 15:00 jcg	< 0.1	mg/L	0.1	1	SM 4500 S- F 2000
Temperature, C	5/23/2018 12:20 bh	24.8	C	0.01	1	SM 2550 B 2000
Thallium, Total or Recoverable	5/25/2018 12:00 bh	< 0.005	mg/L	0.005	1	EPA 200.7
Titanium, Total or Recoverable	5/25/2018 15:00 bh	<0.005	mg/L	0.005	1	EPA 200.7
Total Alpha Radioactivity	7/3/2018 13:47 jcg	ROL	mg/L	0.1	1	900.0
Total Beta Radioactivity	7/3/2018 13:47 jcg	ROL	mg/L	0.1	1	900.0
Total Keldjahl Nitrogen (TKN)	5/25/2018 10:00 bh	0.39	mg/L	0.1	1	Hach 10242
Total Organic Carbon	5/25/2018 09:06 gs	16.0	mg/L	0.5	1	SM 5310 C
Total Radium 226	7/3/2018 13:47 jcg	ROL	mg/L	0.1		904.0
Total Radium 228	7/3/2018 13:47 jcg	ROL	mg/L	0.1		904.0
Zinc, Total or Recoverable	5/25/2018 12:00 bh	0.041	mg/L	0.005	1	EPA 200.7

Note: Samples were analyzed in general accordance with the following Method References:
-Code of Federal Regulations, Title 40, Part 136
-Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846
-ASTM Annual Standards
-Alabama Department of Environmental Management Lab Certification # 41720

Date: 7/3/2018

report sent via email

Client Sample Results

Energy Technical Services LLC

Project/Site: Stormwater / Permit Renewal

Client Sample ID: 180522R003
Date Collected: 05/22/18 07:00
Date Received: 05/25/18 13:00

Lab Sample ID: 490-152751-3
Matrix: Water

Method: 624 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		50.0		ug/L			05/30/18 19:43	1
Benzene	ND		1.00		ug/L			05/30/18 19:43	1
Bromochloromethane	ND		1.00		ug/L			05/30/18 19:43	1
Bromodichloromethane	ND		1.00		ug/L			05/30/18 19:43	1
Bromoform	ND		1.00		ug/L			05/30/18 19:43	1
Bromomethane	ND		1.00		ug/L			05/30/18 19:43	1
2-Butanone (MEK)	ND		10.0		ug/L			05/30/18 19:43	1
Carbon disulfide	ND		1.00		ug/L			05/30/18 19:43	1
Carbon tetrachloride	ND		1.00		ug/L			05/30/18 19:43	1
Chlorobenzene	ND		1.00		ug/L			05/30/18 19:43	1
Chloroethane	ND		1.00		ug/L			05/30/18 19:43	1
Chloroform	ND		1.00		ug/L			05/30/18 19:43	1
Chloromethane	ND		1.00		ug/L			05/30/18 19:43	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			05/30/18 19:43	1
cis-1,3-Dichloropropene	ND		1.00		ug/L			05/30/18 19:43	1
Dibromochloromethane	ND		1.00		ug/L			05/30/18 19:43	1
1,2-Dibromoethane (EDB)	ND		1.00		ug/L			05/30/18 19:43	1
1,2-Dichlorobenzene	ND		1.00		ug/L			05/30/18 19:43	1
1,3-Dichlorobenzene	ND		1.00		ug/L			05/30/18 19:43	1
1,4-Dichlorobenzene	ND		1.00		ug/L			05/30/18 19:43	1
Dichlorodifluoromethane	ND		1.00		ug/L			05/30/18 19:43	1
1,1-Dichloroethane	ND		1.00		ug/L			05/30/18 19:43	1
1,2-Dichloroethane	ND		1.00		ug/L			05/30/18 19:43	1
1,1-Dichloroethene	ND		1.00		ug/L			05/30/18 19:43	1
1,2-Dichloropropane	ND		1.00		ug/L			05/30/18 19:43	1
1,4-Dioxane	ND		100		ug/L			05/30/18 19:43	1
Ethylbenzene	ND		1.00		ug/L			05/30/18 19:43	1
2-Hexanone	ND		5.00		ug/L			05/30/18 19:43	1
Isopropylbenzene	ND		1.00		ug/L			05/30/18 19:43	1
Methyl acetate	ND		10.0		ug/L			05/30/18 19:43	1
Methylcyclohexane	ND		5.00		ug/L			05/30/18 19:43	1
Methylene Chloride	ND		5.00		ug/L			05/30/18 19:43	1
4-Methyl-2-pentanone (MIBK)	ND		5.00		ug/L			05/30/18 19:43	1
Methyl tert-butyl ether	ND		1.00		ug/L			05/30/18 19:43	1
Styrene	ND		1.00		ug/L			05/30/18 19:43	1
1,1,2,2-Tetrachloroethane	ND		1.00		ug/L			05/30/18 19:43	1
Tetrachloroethene	ND		1.00		ug/L			05/30/18 19:43	1
Toluene	ND		1.00		ug/L			05/30/18 19:43	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			05/30/18 19:43	1
trans-1,3-Dichloropropene	ND		1.00		ug/L			05/30/18 19:43	1
1,2,3-Trichlorobenzene	ND		1.00		ug/L			05/30/18 19:43	1
1,2,4-Trichlorobenzene	ND		1.00		ug/L			05/30/18 19:43	1
1,1,1-Trichloroethane	ND		1.00		ug/L			05/30/18 19:43	1
1,1,2-Trichloroethane	ND		1.00		ug/L			05/30/18 19:43	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.00		ug/L			05/30/18 19:43	1
Vinyl chloride	ND		1.00		ug/L			05/30/18 19:43	1
Xylenes, Total	ND		3.00		ug/L			05/30/18 19:43	1

Client Sample Results

Energy Technical Services LLC

Project/Site: Stormwater / Permit Renewal

Client Sample ID: 180522R003
Date Collected: 05/22/18 07:00
Date Received: 05/25/18 13:00

Lab Sample ID: 490-152751-3
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		76 - 124		05/30/18 19:43	1
Dibromofluoromethane (Surr)	99		67 - 129		05/30/18 19:43	1
1,2-Dichloroethane-d4 (Surr)	102		62 - 143		05/30/18 19:43	1
Toluene-d8 (Surr)	105		60 - 144		05/30/18 19:43	1

Method: 608 - Organochlorine Pesticides in Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND	*	0.0258		ug/L		05/29/18 10:43	05/30/18 15:07	1
alpha-BHC	ND	*	0.0258		ug/L		05/29/18 10:43	05/30/18 15:07	1
beta-BHC	ND	*	0.0258		ug/L		05/29/18 10:43	05/30/18 15:07	1
delta-BHC	ND	*	0.0258		ug/L		05/29/18 10:43	05/30/18 15:07	1
gamma-BHC (Lindane)	ND	*	0.0258		ug/L		05/29/18 10:43	05/30/18 15:07	1
cis-Chlordane	ND	*	0.0258		ug/L		05/29/18 10:43	05/30/18 15:07	1
trans-Chlordane	ND	*	0.0258		ug/L		05/29/18 10:43	05/30/18 15:07	1
4,4'-DDD	ND	*	0.0258		ug/L		05/29/18 10:43	05/30/18 15:07	1
4,4'-DDE	ND	*	0.0258		ug/L		05/29/18 10:43	05/30/18 15:07	1
4,4'-DDT	ND	*	0.0258		ug/L		05/29/18 10:43	05/30/18 15:07	1
Dieldrin	ND	*	0.0258		ug/L		05/29/18 10:43	05/30/18 15:07	1
Endosulfan I	ND	*	0.0258		ug/L		05/29/18 10:43	05/30/18 15:07	1
Endosulfan II	ND	*	0.0258		ug/L		05/29/18 10:43	05/30/18 15:07	1
Endosulfan sulfate	ND	*	0.0258		ug/L		05/29/18 10:43	05/30/18 15:07	1
Endrin	ND	*	0.0258		ug/L		05/29/18 10:43	05/30/18 15:07	1
Endrin aldehyde	ND	*	0.0258		ug/L		05/29/18 10:43	05/30/18 15:07	1
Endrin ketone	ND	*	0.0258		ug/L		05/29/18 10:43	05/30/18 15:07	1
Heptachlor	ND	*	0.0258		ug/L		05/29/18 10:43	05/30/18 15:07	1
Heptachlor epoxide	ND	*	0.0258		ug/L		05/29/18 10:43	05/30/18 15:07	1
Toxaphene	ND		2.06		ug/L		05/29/18 10:43	05/30/18 15:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	36	X	38 - 150	05/29/18 10:43	05/30/18 15:07	1
DCB Decachlorobiphenyl (Surr)	27		10 - 141	05/29/18 10:43	05/30/18 15:07	1

Method: 608 - Polychlorinated Biphenyls (PCBs) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1221	ND		0.515		ug/L		05/29/18 10:43	05/31/18 13:45	1
PCB-1232	ND		0.515		ug/L		05/29/18 10:43	05/31/18 13:45	1
PCB-1016	ND		0.515		ug/L		05/29/18 10:43	05/31/18 13:45	1
PCB-1242	ND		0.515		ug/L		05/29/18 10:43	05/31/18 13:45	1
PCB-1248	ND		0.515		ug/L		05/29/18 10:43	05/31/18 13:45	1
PCB-1254	ND		0.515		ug/L		05/29/18 10:43	05/31/18 13:45	1
PCB-1260	ND		0.515		ug/L		05/29/18 10:43	05/31/18 13:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene (Surr)	34		10 - 150	05/29/18 10:43	05/31/18 13:45	1
DCB Decachlorobiphenyl (Surr)	36		10 - 150	05/29/18 10:43	05/31/18 13:45	1

Client Sample Results

Energy Technical Services LLC

Project/Site: Stormwater / Permit Renewal

Client Sample ID: 180522R003
Date Collected: 05/22/18 09:08
Date Received: 05/25/18 13:00

Lab Sample ID: 490-152751-4
Matrix: Water

Method: 625 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		10.0		ug/L		05/29/18 08:51	05/30/18 15:47	1
Acenaphthylene	ND		10.0		ug/L		05/29/18 08:51	05/30/18 15:47	1
Anthracene	ND		10.0		ug/L		05/29/18 08:51	05/30/18 15:47	1
Benzidine	ND		100		ug/L		05/29/18 08:51	05/30/18 15:47	1
Benzo[a]anthracene	ND		10.0		ug/L		05/29/18 08:51	05/30/18 15:47	1
Benzo[a]pyrene	ND		10.0		ug/L		05/29/18 08:51	05/30/18 15:47	1
Benzo[b]fluoranthene	ND		10.0		ug/L		05/29/18 08:51	05/30/18 15:47	1
Benzo[g,h,i]perylene	ND		10.0		ug/L		05/29/18 08:51	05/30/18 15:47	1
Benzo[k]fluoranthene	ND		10.0		ug/L		05/29/18 08:51	05/30/18 15:47	1
Bis(2-chloroethoxy)methane	ND		10.0		ug/L		05/29/18 08:51	05/30/18 15:47	1
Bis(2-chloroethyl)ether	ND		10.0		ug/L		05/29/18 08:51	05/30/18 15:47	1
bis (2-chloroisopropyl) ether	ND		10.0		ug/L		05/29/18 08:51	05/30/18 15:47	1
Bis(2-ethylhexyl) phthalate	ND		10.0		ug/L		05/29/18 08:51	05/30/18 15:47	1
Butyl benzyl phthalate	ND		10.0		ug/L		05/29/18 08:51	05/30/18 15:47	1
4-Chloro-3-methylphenol	ND		10.0		ug/L		05/29/18 08:51	05/30/18 15:47	1
2-Chloronaphthalene	ND		10.0		ug/L		05/29/18 08:51	05/30/18 15:47	1
2-Chlorophenol	ND		10.0		ug/L		05/29/18 08:51	05/30/18 15:47	1
4-Chlorophenyl phenyl ether	ND		10.0		ug/L		05/29/18 08:51	05/30/18 15:47	1
Chrysene	ND		10.0		ug/L		05/29/18 08:51	05/30/18 15:47	1
Dibenz(a,h)anthracene	ND		10.0		ug/L		05/29/18 08:51	05/30/18 15:47	1
1,2-Dichlorobenzene	ND		10.0		ug/L		05/29/18 08:51	05/30/18 15:47	1
1,3-Dichlorobenzene	ND		10.0		ug/L		05/29/18 08:51	05/30/18 15:47	1
1,4-Dichlorobenzene	ND		10.0		ug/L		05/29/18 08:51	05/30/18 15:47	1
3,3'-Dichlorobenzidine	ND		10.0		ug/L		05/29/18 08:51	05/30/18 15:47	1
2,4-Dichlorophenol	ND		10.0		ug/L		05/29/18 08:51	05/30/18 15:47	1
Diethyl phthalate	ND		10.0		ug/L		05/29/18 08:51	05/30/18 15:47	1
2,4-Dimethylphenol	ND		10.0		ug/L		05/29/18 08:51	05/30/18 15:47	1
Dimethyl phthalate	ND		10.0		ug/L		05/29/18 08:51	05/30/18 15:47	1
Di-n-butyl phthalate	ND		10.0		ug/L		05/29/18 08:51	05/30/18 15:47	1
4,6-Dinitro-2-methylphenol	ND		25.0		ug/L		05/29/18 08:51	05/30/18 15:47	1
2,4-Dinitrophenol	ND		25.0		ug/L		05/29/18 08:51	05/30/18 15:47	1
2,4-Dinitrotoluene	ND		10.0		ug/L		05/29/18 08:51	05/30/18 15:47	1
2,6-Dinitrotoluene	ND		10.0		ug/L		05/29/18 08:51	05/30/18 15:47	1
Di-n-octyl phthalate	ND		10.0		ug/L		05/29/18 08:51	05/30/18 15:47	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10.0		ug/L		05/29/18 08:51	05/30/18 15:47	1
Fluoranthene	ND		10.0		ug/L		05/29/18 08:51	05/30/18 15:47	1
Fluorene	ND		10.0		ug/L		05/29/18 08:51	05/30/18 15:47	1
Hexachlorobenzene	ND		10.0		ug/L		05/29/18 08:51	05/30/18 15:47	1
Hexachlorobutadiene	ND		10.0		ug/L		05/29/18 08:51	05/30/18 15:47	1
Hexachlorocyclopentadiene	ND		10.0		ug/L		05/29/18 08:51	05/30/18 15:47	1
Hexachloroethane	ND		10.0		ug/L		05/29/18 08:51	05/30/18 15:47	1
Indeno[1,2,3-cd]pyrene	ND		10.0		ug/L		05/29/18 08:51	05/30/18 15:47	1
Isophorone	ND		10.0		ug/L		05/29/18 08:51	05/30/18 15:47	1
Naphthalene	ND		10.0		ug/L		05/29/18 08:51	05/30/18 15:47	1
Nitrobenzene	ND		10.0		ug/L		05/29/18 08:51	05/30/18 15:47	1
2-Nitrophenol	ND		10.0		ug/L		05/29/18 08:51	05/30/18 15:47	1
4-Nitrophenol	ND		10.0		ug/L		05/29/18 08:51	05/30/18 15:47	1
N-Nitrosodimethylamine	ND		10.0		ug/L		05/29/18 08:51	05/30/18 15:47	1

Client Sample Results

Energy Technical Services LLC

Project/Site: Stormwater / Permit Renewal

Client Sample ID: 180522R003 — **Lab Sample ID: 490-152751-4**

Date Collected: 05/22/18 09:08 — **Matrix: Water**

Date Received: 05/25/18 13:00

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND	,	10.0		ug/L		05/29/18 08:51	05/30/18 15:47	1
n-Nitrosodiphenylamine(as diphenylamine)	ND		10.0		ug/L		05/29/18 08:51	05/30/18 15:47	1
Pentachlorophenol	ND		10.0		ug/L		05/29/18 08:51	05/30/18 15:47	1
Phenanthrene	ND		10.0		ug/L		05/29/18 08:51	05/30/18 15:47	1
Phenol	ND		10.0		ug/L		05/29/18 08:51	05/30/18 15:47	1
Pyrene	ND		10.0		ug/L		05/29/18 08:51	05/30/18 15:47	1
1,2,4-Trichlorobenzene	ND		10.0		ug/L		05/29/18 08:51	05/30/18 15:47	1
2,4,6-Trichlorophenol	ND		10.0		ug/L		05/29/18 08:51	05/30/18 15:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*55*		*10 - 120*	*05/29/18 08:51*	*05/30/18 15:47*	*1*
2-Fluorophenol	*47*		*29 - 120*	*05/29/18 08:51*	*05/30/18 15:47*	*1*
Nitrobenzene-d5	*57*		*27 - 120*	*05/29/18 08:51*	*05/30/18 15:47*	*1*
Phenol-d5	*39*		*10 - 120*	*05/29/18 08:51*	*05/30/18 15:47*	*1*
Terphenyl-d14	*43*		*13 - 120*	*05/29/18 08:51*	*05/30/18 15:47*	*1*
2,4,6-Tribromophenol	*85*		*10 - 120*	*05/29/18 08:51*	*05/30/18 15:47*	*1*

Client Sample Results

Energy Technical Services LLC

Project/Site: Stormwater / Permit Renewal

Client Sample ID: 180522R003
Date Collected: 05/22/18 07:00
Date Received: 05/25/18 13:00

Lab Sample ID: 490-152751-3
Matrix: Water

Method: 900.0 - Gross Alpha and Gross Beta Radioactivity

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Gross Alpha	9.30	U G	7.39	7.47	3.00	11.2	pCi/L	06/04/18 13:34	06/11/18 20:43	1
Gross Beta	23.6	G	4.99	5.52	4.00	5.65	pCi/L	06/04/18 13:34	06/11/18 20:43	1

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.140	U	0.125	0.125	1.00	0.182	pCi/L	05/31/18 11:24	06/30/18 13:48	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.8*		*40 - 110*	*05/31/18 11:24*	*06/30/18 13:48*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.596	U	0.511	0.513	1.00	0.812	pCi/L	05/31/18 12:32	06/21/18 15:45	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.8*		*40 - 110*	*05/31/18 12:32*	*06/21/18 15:45*	*1*
Y Carrier	*89.3*		*40 - 110*	*05/31/18 12:32*	*06/21/18 15:45*	*1*

NPDES PERMIT RENEWAL APPLICATION

Prepared for:

WESTROCK MILL COMPANY, LLC – DEMOPOLIS MILL
28270 U. S. HIGHWAY 80 WEST
DEMOPOLIS, ALABAMA

November 2018

Prepared by:

Spivey
Engineering
Solutions, LLC

Table of Contents

Appendices

Tables

Section 1. Introduction

WestRock Mill Company, LLC (WestRock) owns and operates the Demopolis Mill, located near Demopolis, Alabama. The Demopolis Mill produces market bleached Kraft pulp and food-grade bleached Kraft paperboard. WestRock currently discharges treated wastewater to the Tombigbee River through Outfall DSN 001 in accordance with National Pollutant Discharge Elimination System (NPDES) Permit AL0002828. Treated wastewaters discharged through Outfall DSN 001 include process and sanitary wastewater, and storm water runoff. Runoff from various mill sources described in Section 1.3 below is diverted by drainage ditches to the East Ravine basin, or solids settling basin, prior to discharge to the Tombigbee River via Outfall DSN 005.

Storm water runoff associated with industrial activity is either treated with process wastewater before being discharged to the Tombigbee River through Outfalls DSN 001 and DSN 005, or to an unnamed tributary to the Tombigbee River through Outfalls DSN 006, DSN 007, and DSN 008. A portion of the storm runoff from the mill road north of the Bark Pile drains to the north prior to discharge to the Tombigbee River. These two discharge outfalls are currently permitted by ADEM General Permit ALG060521, which became effective on January 1, 2018. WestRock is proposing to add DSN 009 and DSN 010 to the individual NPDES permit to replace the outfalls covered by the general NPDES permit.

The current NPDES permit was effective on July 1, 2014 and expires on June 30, 2019. The permit renewal application is due for submittal to the Alabama Department of Environmental Management on or before January 2, 2019.

This report provides the NPDES permit renewal application, including the following completed forms:

- EPA Form 1
- EPA Form 2C
- EPA Form 2F
- ADEM Supplementary Permit Application Form 187

1.1 Mill Description

The manufacturing operations at the Demopolis Mill consist of the delignification or pulping of wood chips utilizing high temperatures and pressures in conjunction with cooking liquors. The resulting wood pulp (fiber) is then bleached and formed into a sheet of finished product for sale to others or is cut and baled for sale to others as "market pulp".

Woodyard operations provide wood chips of uniform size that are fed into a pressure vessel (digester) along with the cooking liquor. The cooking liquor consists of a solution of sodium carbonate, sodium hydroxide, and sodium sulfide. The sulfide and the hydroxide portion is

referred to as the "active alkali". The amount of active alkali varies as to conditions and wood species, but is generally about 10 percent of the weight of the wood chips.

This mixture of wood chips and cooking chemical is continuously introduced into a "cooking" vessel, or digester, at elevated temperatures and pressures. Passing through this vessel, the mixture is held at the required temperature for a time sufficient to perform the cooking operation. This mixture then passes to a blow tank through an orifice or "blow" valve. Due to the difference in pressures, the mixture "flashes" or boils as it leaves the digester, causing the cooked wood chips to come apart. The cooking operation dissolves the lignin portion of the wood, freeing the fiber or useable portion.

The fiber is washed free of the dissolved lignins and then screened to remove oversized (uncooked) pieces. This unbleached pulp is then bleached to remove the last traces of lignin and the result is a very white wood fiber.

Most of the wood fiber is then formed into a sheet, dried and coated with the required materials to form rolls of paperboard. The portion of fiber that is not sent to the paperboard machine is formed into a sheet, dried and baled at the pulp dryer. At times the paperboard machine trim is chopped and formed into bales. The paperboard, market pulp and baled waste are then sold.

The mill operates two separate fiber lines, one hardwood and one softwood. Hardwood and softwood chips are kept segregated in the woodyard. The chips are processed in separate digesters, washing and screening equipment, and bleach plants. The fiber lines are merged immediately prior to the paperboard machine and pulp dryer. The paperboard machine uses about 90 percent hardwood and 10 percent softwood. The pulp dryer product varies from 100 percent hardwood to 100 percent softwood.

The spent cooking liquor, or black liquor, from cooking/washing is processed to remove water to the point that the material will burn. This black liquor is burned in a "recovery furnace" in a reducing atmosphere so that the resulting sulfur compounds are converted into sulfide for reuse in the cooking liquors. Almost all of the cooking liquor is recovered from the cooking and washing operations. However, during the screening and bleaching operations, the amount of chemical and soluble lignin is too small to recover and it is wasted (purged) to the process sewer. This wasted (purged) material, along with sand, soil particles, and other materials washed from the fiber, constitute the influent to the Effluent Treatment Plant.

1.2 Water Supply and Uses

All mill water is withdrawn from the Tombigbee River. The mill water intake from the river is approximately 19 million gallons per day (MGD). The mill operates three (3) cooling tower systems to recycle cooling water. Potable water is supplied by the City of Demopolis.

1.3 Wastewater Source and Treatment

The mill's wastewater sewer system is separated into an alkaline waste sewer system, an acid waste sewer system, and a strong alkaline waste sewer system. The alkaline waste sewer system collects portions of the storm water runoff, portions of the sanitary sewer system, the underflow from the fresh water clarifiers at the water treatment system, and wastewater from the K-2 Digester, the No. 1 Bleach Plant, the No. 2 Bleach Plant, power house, and the Board Mill. The acid waste system collects flows from the bleach plants, the chlorine dioxide (ClO_2) plant, acid unloading and storage, and the spent acid tank. The strong alkaline waste system collects flows from the K-1 Digester, pulp washing systems, pulp screening systems, the multiple-effect evaporator system, recovery furnace, power house, and the recausticizing area.

Several internal control measures are used which result in a reduced raw wastewater load discharged to the mill's effluent treatment system. Among these control measures are water recycling, filtrate recycling, closed-loop cooling towers, and evaporator condensate reuse. The strong alkaline waste sewer system can be pumped to a load equalization basin, the aeration basin, or can gravity flow into the process sewer.

The acid waste system and the alkaline waste system are combined in the process waste lift station. This process wastewater is pumped to a 275-foot diameter clarifier. The clarifier overflow rate is approximately 280 to 300 gallons per day per square foot, and flows into the clarifier bypass pond. The clarifier bypass pond flows into the northwest corner of the aeration basin. Flow to the primary clarifier can also be discharged directly into the aerated stabilization basin (ASB).

The aeration basin has a calculated volume of 240 million gallons. The retention time of this basin is approximately 7 to 8 days. The aeration basin uses subsurface static type aerators with an available connected horsepower of 1600 for aeration. Normally, 800-1,200 horsepower is utilized with the remainder in standby. There are thirteen (13) 75-horsepower surface floating type aerators. During normal operations, most if not all 13 of these aerators are operated.

The effluent from the aeration system flows to one of two polishing ponds that are normally operated with one pond held in standby. One polishing pond provides approximately one (1) to two (2) days retention. Effluent is discharged via DSN 001 upon exiting a polishing pond.

The total effluent treatment system retention time is approximately 10 days not including the Load Equalization Basin (LEB). The final discharge from the treatment plant is to the Tombigbee River.

Storm water runoff from the mill site is contained within the mill site. Almost all of this runoff eventually finds its way into the mill's sewers, the wastewater treatment system, the East Ravine basin, or the McAlpine pond. A small amount of runoff exits the mill near the log scales and north of the bark pile.

Storm water runoff from the wastewater treatment and filter house area, sludge storage areas, contractor offices and shop areas, equipment laydown, scrap steel and wood staging areas, and pulp storage area flows into one of two containment ponds. The New Process Pond receives runoff from the filter house area, part of wastewater treatment, Sludge Area 2, equipment laydown, and pulp storage. Sludge Area 3 receives runoff from part of wastewater treatment, Sludge Areas 2 and 4, contractor offices and shop areas, equipment laydown, and scrap steel and scrap wood staging areas. At times liquid and solids from the New Process Pond are pumped to Sludge Area 2. Accumulated liquid in Sludge Area 3 is periodically pumped into the mill's treatment system and discharged via DSN 001.

Within the mill perimeter runoff flows into U-drains and drainage ditches and eventually into the process sewer pit. During normal operations effluent is pumped from the process sewer pit to the clarifier. The process sewer pit emergency overflow is into the New Process Pond.

The east side of the mill perimeter is also handled in a similar fashion. Stormwater and/or process water originates from the following miscellaneous sources that discharge into the drainage basin for DSN 005:

- LEB and ASB holding pond embankments;
- Employee car wash (no detergent);
- Mill parking and product loading areas;
- Storeroom including outside storage and surrounding field;
- Training Center & Customer Service Building;
- Old coal storage area on east side of Storeroom;
- Mill water tower;
- Mill truck scales;
- No. 3 Lime Kiln area (outside curbing and sump overflow);
- Lime Mud and Solid Waste Landfills including mobile equipment;
- Landfill leachate;
- Saltwell shop, parking area and equipment laydown;
- Saltwell Chip Mill including mobile equipment;
- Dry and wet-deck log storage;
- Biomass (e.g. bark and sawdust) storage;
- Miscellaneous chemical and oil storage containers shown on drawing D33-305 and B33-099;
- Ash Basin and surrounding areas including acid unloading and dredge ponds;
- Westervelt-owned closed black liquor ponds and surrounding areas;
- Biomass and chip unloading stations;
- Miscellaneous biomass and chip conveyors and related equipment;
- Recovery Area cooling tower blowdown and seal water;
- Alabama Power substations;
- No. 2 fuel oil and gasoline unloading;
- Softwood reclaimer and storage area;

- Hardwood reclaimer and storage area;
- Bark reclaimer and biomass storage area;
- Chip Thickness Screening Building and surrounding area;
- North and east sides on No. 4 Power boiler, including fly ash, sodium bicarbonate, and activated carbon handling;
- Demineralizer backwash; and
- Boiler blowdown.

Stormwater runoff and/or process flow from these sources is highly variable. The vast majority of discharge from DSN 005 is raw water from wet-deck log storage and stormwater runoff. Runoff to the DSN 005 drainage basin is diverted by ground topography, swales and drainage ditches into the Ash Settling Basin or East Ravine. Depending on rain fall these ponds provide up to several days of retention prior to discharge to the river via DSN 005.

The Saltwell Chip Mill operation consists of dry and wet-deck log storage, two gantry cranes with log storage, debarking drum, chipper, chip screens, shop and equipment storage.

Storm water on the extreme west side of the mill flows into the McAlpine pond. This outfall, DSN 006, was added for future borrow pits, the equipment laydown yard, and an out-of-service concrete batch plant. This pond provides for several weeks of retention in the winter and at times during the summer it does not overflow at all.

A portion of the storm runoff from the mill road north of the Bark Pile drains to the north prior to discharge to the Tombigbee River. Two discharge outfalls are currently permitted by ADEM General Permit ALG060521, which became effective on January 1, 2018. WestRock is proposing to add DSN 009 and DSN 010 to the individual NPDES permit to replace the outfalls covered by the general NPDES permit.

1.4 Sanitary Waste

Sanitary waste is collected in several separate systems for pretreatment before being discharged into the mill's wastewater system. There are several restroom facilities in remote areas that treat waste by septic tank and field lines. All pretreated sewer waste is then introduced to the mill's process sewer system.

1.5 Sludge Handling

Primary sludge is dewatered to approximately 20 percent solids prior to entering the sludge press where the sludge is dewatered to approximately 40 percent solids. The dewatered sludge is discharged onto a concrete slab immediately outside the sludge dewatering building. A front-end loader then loads the sludge onto a truck. The sludge is hauled to the bark pile, mixed with bark, and burned in the No. 4 Power Boiler. Wastewater treatment plant residuals may be sent to the New Process pond when the effluent clarifier and/or dewatering system is temporarily out of service. When the Effluent Clarifier is bypassed for routine maintenance, sludge accumulates in the Clarifier Bypass Pond, which is periodically

dredged to Sludge Area 3. Sludge production averages approximately 15 tons per day of dry solids.

1.6 Market Pulp

The market pulp system operates at an average rate of 300 tons per day of bleached stock from the pulp mill. This stock is dewatered across a vacuum former and dried in a steam-heated pulp dryer. From the pulp dryer, the pulp is cut, baled, wrapped and tied for shipment to the customer.

1.7 Pulp Mill

The chlorine dioxide plant uses the R-8 process to manufacture a 10 gram per liter solution of chlorine dioxide (ClO_2) for use in both bleach plants. Methanol, sodium chlorate, and sulfuric acid are used in the ClO_2 manufacturing process.

The mill operates two single-vessel hydraulic continuous digesters. The K-1 Digester cooks softwood and the K-2 Digester cooks hardwood.

The mill also operates two elemental chlorine free (ECF) bleach plants: the five-stage $D_0E_{OP}D_1E_2D_2$ No. 1 Bleach Plant and the three-stage $D_0E_{OP}D_1$ No. 2 Bleach Plant. The No. 1 Bleach Plant bleaches softwood and the No. 2 Bleach Plant bleaches hardwood. The mill operates one multiple-effect evaporator system with a combination of long-tube vertical evaporator bodies and high solids concentrators used to evaporate Kraft black liquor from 15 percent solids to 70 percent solids before it is burned in the recovery furnace.

The recovery furnace is a single-drum low odor unit designed to burn 4.32 million pounds of black liquor solids per day (as-fired). The mill operates one lime kiln and a conventional clarification-type recausticizing system.

1.8 Liquid Storage

The mill has numerous chemical storage tanks and areas located throughout the plant site. The attached drawing B33-099 (Figure 2) indicates the location of oil storage containers and storm water drainage paths for the mill site. Drawing D33-305 (Figure 3) indicates the chemical storage locations. These drawings are provided in Appendix B.

Section 2. Proposed Permit Limits

2.1 Bleached Paperboard and Market Pulp Production Rates

The highest 12-month period of bleached Kraft market pulp production during the previous five years began on June 1, 2017, and concluded on May 31, 2018, and the highest 12-month period of bleached Kraft paperboard production during the previous five years began on June 1, 2017 and concluded on May 31, 2018. Table 2-1 summarizes the monthly and total production during this period. The production rates identified in Table 2-1 should be used for calculation of the production-based categorical effluent limits for five-day biochemical oxygen demand (BOD_5) and total suspended solids (TSS) for the facility.

The highest 12-month period of unbleached Kraft pulp production during the previous five years began on May 1, 2016 and concluded on April 30, 2017. Table 2-2 summarizes the monthly and total unbleached pulp production during this period. The A-Line and B-Line rates should be used to calculate the chloroform discharge limits for DSN 001A and DSN 001B, respectively. The combined unbleached pulp production rate of 1,273.0 air-dry tons per day rate should be used for calculation of the adsorbable organic halides (AOX) categorical effluent limit at DSN 001. Section 2.2 discusses the proposed limits for the renewed permit and the basis of these recommendations.

2.2 Main Discharge Outfall (DSN 001)

2.2.1 Effluent BOD_5 and TSS

Treated wastewater consisting of process and sanitary wastewater and storm water runoff are discharged to the Tombigbee River through Outfall DSN 001. Treated wastewater from the bullet list of sources on pages 1-4 and 1-5 is discharged to the Tombigbee River through Outfall DSN 005. The production-based allocations for BOD_5 and TSS for process wastewater are summarized in Table 2-3. This allocation is based upon the daily bleached Kraft paperboard and market pulp production rates recorded during the period between June 1, 2017, and May 31, 2018. The production-based categorical effluent limits apply to the facility's discharges from Outfalls DSN 001 and DSN 005 during the period from December 1 through April 30. For the operating period between May 1 and November 30, the Demopolis Mill proposes to retain the BOD_5 allocation tables contained in the current NPDES permit and previously approved by ADEM.

2.2.2 Effluent pH

Effluent pH limits of 6.0 (minimum daily) to 9.0 (maximum daily) are proposed to be continued. These limits are consistent with the existing limits and will be protective of water quality.

Section 3. NPDES Permit Renewal Application

This section contains the permit application forms used for this renewal application. In addition, certifications of best management practices (BMP) plan implementation and non-use of biocides containing trichlorophenol and pentachlorophenol are provided.

3.1 Application Forms

The U. S. Environmental Protection Agency (EPA) and ADEM forms associated with this permit renewal are provided in Appendix A of this report. These forms include the following:

- U. S. EPA Form 1
- U. S. EPA Form 2C (for Outfalls DSN 001 and DSN 005)
- U. S. EPA Form 2F (for Outfalls DSN 001, DSN 005, DSN 006, DSN 007, DSN 008, DSN 009, and DSN 010)
- ADEM Form 187

A site map showing the NPDES outfall locations is provided in Figure 4 of Appendix B.

3.2 Form 2C Sampling

The Demopolis Mill collected the required composite and grab samples to complete the U. S. EPA Form 2C for Outfalls DSN 001 and DSN 005 for renewal of the facility's NPDES permit. The contract laboratory reported detectable results for two pollutants for which sampling is required for DSN 001. Explanations for these detectable results are provided below:

- Lead and Zinc (Metals, Cyanide, and Total Phenols) – Lead and zinc are naturally occurring elements in wood. The facility processes thousands of tons of wood per day to produce bleached Kraft pulp and paperboard. While most of the residual lead and zinc are treated in the facility's effluent treatment system and removed with the primary clarifier sludge, lead and zinc were measured above the minimum detection level in the facility's 2018 effluent sampling for DSN 001.
- Total Phenols (Metals, Cyanide, and Total Phenols) – Phenol compounds are naturally occurring substances in wood. The facility processes thousands of tons of wood per day to produce bleached Kraft pulp and paperboard. While most of the residual total phenol is treated in the facility's effluent treatment system, total phenols were measured above the minimum detection level in the facility's 2018 effluent sampling for DSN 001.
- Arsenic, Copper, Zinc and Total Phenols (Metals, Cyanide, and Total Phenols) were measured above the minimum detection level in the facility's 2018 effluent sampling for DSN 005. The source of these constituents is likely coal ash, which is treated

prior to discharge from DSN 005. The Demopolis Mill has permanently shut down the No. 1 and No. 3 Power Boilers and no longer burns coal as a fuel.

There were no other positive results detected for the pollutants listed in pages V-3 through V-9 of the Form 2C for Outfall DSN 001 or for Outfall DSN 005.

WestRock

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Demopolis, Alabama 36732

office: 334.289.1242
fax: 678.728.1996
westrock.com

November 29, 2018

Alex Chavers
Industrial Section – Water Division
Alabama Department of Environmental Management
1400 Coliseum Boulevard
Montgomery, Alabama 36110-2400

RE: Renewal Application for NPDES Permit No. AL0002828
WestRock Mill Company, LLC – Demopolis, Alabama

Dear Mr. Chavers:

WestRock Mill Company, LLC's (WestRock's) Demopolis Mill is applying for renewal of NPDES Permit No. AL0002828 issued by the Alabama Department of Environmental Management (ADEM). Three copies of the permit renewal application and a check payable to ADEM in the amount of $19,005.00 have been provided with this transmittal letter.

WestRock is requesting the following changes to the NPDES permit in this five-year permit renewal:

- Part I.A. WestRock has applied the U. S. Environmental Protection Agency's (EPA's) *Interim Guidance for Performance-Based Reduction of NPDES Permit Monitoring Frequencies* (April 1996) to the long-term average effluent data recorded by the Mill for adsorbable organohalogens (AOX). The results of the evaluation are attached and support reducing the AOX monitoring frequency from once per calendar quarter to once per six months.
- Part I.A. WestRock has applied the U. S. Environmental Protection Agency's (EPA's) *Interim Guidance for Performance-Based Reduction of NPDES Permit Monitoring Frequencies* (April 1996) to the long-term average effluent data recorded by the mill for chloroform in the No. 1 and No. 2 bleach plant internal outfalls. The results of the evaluation are attached and support reducing the chloroform monitoring frequency from once per calendar quarter to once per six months. WestRock therefore requests that ADEM reduce the chloroform monitoring frequency to once per six months.

- Part I.A. Proposed outfalls DSN 009 and DSN 010 are existing storm water outfalls that are currently permitted by ADEM General Permit No. ALG060521. WestRock is requesting to add these outfalls into the individual NPDES permit. Upon reissuance of the individual NPDES permit, WestRock will terminate General Permit No. ALG060521.
- Part IV.E. WestRock requests that the period of monitoring required by Part IV.E be changed from May 1 – November 30 each year to June 1 – September 30. A review of the in-stream monitoring data collected by the Demopolis Mill during the past 13 years indicates that during the month of May the dissolved oxygen (DO) was 7.1 mg/L or greater at 143 river stations measured; during the month of October the DO was 7.0 mg/L or greater at 259 of 267 river stations measured with only one station below 6.7 mg/L DO; and during the month of November the DO was 7.0 mg/L or greater at 183 river stations measured.

WestRock respectively requests that ADEM consider the aforementioned comments and recommendations to the draft re-issuance of NPDES Permit No. AL0002828. If you have any questions or need additional information concerning these comments, please contact me at (334) 289-6228.

Sincerely,

WestRock Mill Company, LLC

Harris Hurst
Director of Environmental Compliance

C: Angela Myers/WestRock
Wayne Baker/WestRock
Elizabeth Etheridge/WestRock
File

NPDES Permit Renewal Application
WestRock Mill Company, LLC - Demopolis Mill
November 2018

Spivey
Engineering
Solutions, LLC