ARKANSAS
ENERGY & ENVIRONMENT

September 3, 2023

Honorable Paul Choate, Mayor
City of El Dorado - South Plant
P.O. Box 1587
El Dorado, AR 71731

RE: Discharge Permit Number AR0033723, AFIN 70-00341

Dear Mayor Choate:

Enclosed are the public notice, a copy of the draft permit, and Fact Sheet, which the Arkansas Department of Energy and Environment – Division of Environmental Quality (DEQ) has prepared and mailed to you on the above date under the authority of the National Pollutant Discharge Elimination System (NPDES) and the Arkansas Water and Air Pollution Control Act. A copy of the final permit will be mailed to you when the Division has made a final permitting decision.

In accordance with Rule 8.207, the enclosed public notice will be or has been published by DEQ in a newspaper of general circulation of your facility for one (1) day only. An invoice for the cost of publishing the public notice and proof of publication will be sent to you by the advertising newspaper. The permittee must send proof of publication and proof of payment to the address at the bottom of this letter as soon as possible but no later than 30 days from the above date. Until this Division receives proof of publication of the public notice and payment of all permit fees, no further action will be taken on the issuance of your discharge permit.

For a list of changes, please see Section 5 of the enclosed Fact Sheet. Comments must be received at DEQ prior to the close of the public comment period as described in the enclosed public notice. Once a final permit is issued by the Director and becomes effective, the permittee must comply with all terms and conditions of the permit, or be subject to enforcement actions for any instances of noncompliance during the duration of the permit, usually five (5) years. Consequently, it is imperative that you, as the applicant, thoroughly review the enclosed documentation for accuracy, applicability, and your ability to comply with all conditions therein.

Should you have any questions concerning any part of the draft permit, please contact Loretta Carstens, P.E. at (501) 682-0612.

Sincerely,

Alan J. York
Associate Director, Office of Water Quality
Division of Environmental Quality
5301 Northshore Drive, North Little Rock, AR 72118-5317

AJY:lc

Enclosure

PUBLIC NOTICE OF DRAFT DISCHARGE PERMIT
PERMIT NUMBER AR0033723, AFIN 70-00341

In accordance with Ark. Code Ann. § 8-4-203(e), the Arkansas Department of Energy and Environment – Division of Environmental Quality (DEQ), Office of Water Quality, gives the following notice:

City of El Dorado - South Plant operates a facility located as follows: 325 Quail Crossing, El Dorado, AR 71730 in Union County. The facility is currently permitted to discharge treated municipal wastewater as follow: Outfall 001 - into Bayou de Loutre, thence to the Ouachita River in Segment 2D of the Ouachita River Basin and Outfall 010S - via the joint pipeline to the Ouachita River, approximately 1.5 miles downstream of the H.K. Thatcher Lock and Dam in Segment 2D of the Ouachita River Basin. City of El Dorado - South Plant submitted an application on June 27, 2019 for the renewal of NPDES Permit No. AR0033723. The application has been reviewed by the DEQ's Office of Water Quality and has received tentative approval subject to the terms of this notice.

Citizens wishing to examine or obtain copies of the permit application, the draft permitting decision, or the Fact Sheet may do so at the DEQ headquarters located at 5301 Northshore Drive, North Little Rock, AR 72118-5317. To request a copy of one or more of the documents, please call (501) 682-0623. For those with Internet access, a copy of the proposed draft permit as well as the publication date may be found on the DEQ's website at: https://www.adeq.state.ar.us/water/permits/drafts_pn.aspx

Comments on the draft renewal will be accepted in accordance with Arkansas Pollution Control and Ecology Commission (APC&EC) Rule 8.208. DEQ's contact person for submitting written comments on the draft permit, or requesting a public hearing on the draft permit, is Loretta Carstens, P.E. at the above address and telephone number or by email at Water-Draft-Permit-Comment@adeq.state.ar.us.

The period for submitting comments on the draft permit and for requesting a public hearing shall begin on the date of publication of the public notice and end at 4:30 P.M. (Central Time) on the 30th day after the publication date. If the last day of the comment period is a Saturday, Sunday, or legal holiday, the public comment period shall expire on the next day that is not a Saturday, Sunday, or legal holiday. For information regarding the actual publication date along with the actual date and time the comment period will end, please contact Loretta Carstens, P.E. at the above address and telephone number or by email at Water-Draft-Permit-Comment@adeq.state.ar.us. Public notice, comments, and hearings will be conducted in accordance with Rule 6.104(A)(5) [40 C.F.R. §§ 124.10 through 124.12 by reference] and Rules 8.207 through 8.210 (Administrative Procedures). All persons, including the permittee, who wish to comment on DEQ's draft permitting decision must submit written comments to DEQ, along with their name and mailing address. A Public Hearing will be held when DEQ finds a significant degree of public interest. After the public comment period, DEQ will issue a final permitting decision. DEQ will notify the applicant and each person who has submitted written comments or requested notice of the final permitting decision. Any interested person who has submitted comments may appeal a final decision by DEQ in accordance with the APC&EC Rule 8.

Draft

Permit Number: AR0033723
AFIN: 70-00341

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

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

City of El Dorado
South Plant

is authorized to discharge treated municipal wastewater from a facility located as follows: 325 Quail Crossing, El Dorado, AR 71730, in Union County. From Highway 82 Bypass, travel 0.7 miles northon Southfield Road, turn and travel 0.2 miles north on South West Avenue, turn and go 0.25 miles east on East Pecan St., then 1.4 miles on South Jackson Street, then right on Quail Crossing to facility.

Facility Coordinates: Latitude: 33° 10' 24.24" N; Longitude: 92° 39' 40.60" W

Receiving streams:

Outfall 001 - Bayou de Loutre, thence to the Ouachita River in Segment 2D of the Ouachita River Basin.
Outfall 010S - via the joint pipeline to the Ouachita River, approximately 1.5 miles downstream of the H.K. Thatcher Lock and Dam in Segment 2D of the Ouachita River Basin.

The permitted outfalls are located at the following coordinates:

Outfall 001: Latitude: 33° 10' 24" N; Longitude: 92° 39' 41" W
Outfall 010S: Latitude: 33° 17' 30" N; Longitude: 92° 28' 12" W (@ the Ouachita River)
Latitude: 33° 10' 24" N; Longitude: 92° 39' 42" W (monitoring location)

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

Effective Date:
Expiration Date:

_____ _____

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

Issue Date

PART I
PERMIT REQUIREMENTS

SECTION A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS: OUTFALL 001 - treated municipal wastewater.

During the period beginning on the effective date and lasting until the date of expiration, the permittee is authorized to discharge from Outfall 001. Such discharges shall be limited and monitored by the permittee as specified below as well as Parts II and III. See Part IV for all definitions and calculations.

Effluent Characteristics		**Discharge Limitations**			**Monitoring Requirements**	
		Mass (lbs/day, unless otherwise specified)	Concentration (mg/l, unless otherwise specified)		Frequency[5]	Sample Type
		Monthly Avg.	Monthly Avg.	7-Day Avg.		
Flow		N/A	Report, MGD	Report, MGD (Daily Max.)	once/day	totalizing meter
Overflows		Monthly Total SSOs (occurrences/month)			See Comments[1]	
Overflow Volume		Monthly Total Volume of SSOs (gallons/month)			See Comments[1]	
Carbonaceous Biochemical Oxygen Demand ($CBOD_5$)						
(May – October)		583.8	10	15	once/week	composite
(November – April)		1459.5	25	37.5	once/week	composite
Total Suspended Solids (TSS)						
(May – October)		875.7	15.0	22.5	once/week	composite
(November – April)		1751.4	30	45	once/week	composite
Ammonia Nitrogen (NH_3-N)[6,7]						
NH_3-N Limits for Short Term Discharges[11] (Discharges $\leq$ 5days[9])						
April	Temp $\leq$ 18.0 °C	595.5	10.2	10.2	once/week	composite
	18.1 °C $\leq$ Temp $\leq$ 20.0 °C	595.5	10.2	10.2	once/week	composite
	20.1 °C $\leq$ Temp $\leq$ 22.0 °C	568.1	9.73	9.73	once/week	composite
	22.1 °C $\leq$ Temp $\leq$ 24.0 °C	499.2	8.55	8.55	once/week	composite
	24.1 °C $\leq$ Temp $\leq$ 26.0 °C	437.9	7.50	7.50	once/week	composite
	26.1 °C $\leq$ Temp $\leq$ 28.0 °C	385.3	6.60	6.60	once/week	composite
	28.1 °C $\geq$ Temp	338.6	5.80	5.80	once/week	composite

Effluent Characteristics		Discharge Limitations			Monitoring Requirements	
		Mass (lbs/day, unless otherwise specified)	Concentration (mg/l, unless otherwise specified)		Frequency[5]	Sample Type
		Monthly Avg.	Monthly Avg.	7-Day Avg.		
May	Temp ≤ 18.0 °C	437.9	7.5	7.5	once/week	composite
	18.1 °C ≤ Temp ≤ 20.0 °C	437.9	7.5	7.5	once/week	composite
	20.1 °C ≤ Temp ≤ 22.0 °C	437.9	7.5	7.5	once/week	composite
	22.1 °C ≤ Temp ≤ 24.0 °C	437.9	7.5	7.5	once/week	composite
	24.1 °C ≤ Temp ≤ 26.0 °C	437.9	7.5	7.5	once/week	composite
	26.1 °C ≤ Temp ≤ 28.0 °C	413.3	7.08	7.08	once/week	composite
	28.1 °C ≥ Temp	363.7	6.23	6.23	once/week	composite
(June – October)		356.1	6.1	6.1	once/week	composite
(November – March)		992.5	17.0	17.0	once/week	composite
NH_3-N Limits for Long Term Discharges[12] (Discharges > 5 days[9])						
April	Temp ≤ 18.0ºC	293.7	5.03	12.58	once/week	composite
	18.1 ºC ≤ Temp ≤ 20.0ºC	258.0	4.42	11.05	once/week	composite
	20.1 ºC ≤ Temp ≤ 22.0ºC	227.1	3.89	9.73	once/week	composite
	22.1 ºC ≤ Temp ≤ 24.0ºC	199.7	3.42	8.55	once/week	composite
	24.1 ºC ≤ Temp ≤ 26.0ºC	175.1	3.00	7.50	once/week	composite
	26.1 ºC ≤ Temp ≤ 28.0ºC	154.1	2.64	6.60	once/week	composite
	28.1 ºC ≥ Temp	135.4	2.32	5.8	once/week	composite
May	Temp ≤ 18.0ºC	291.9	5.00	7.50	once/week	composite
	18.1 ºC ≤ Temp ≤ 20.0ºC	276.7	4.74	7.50	once/week	composite
	20.1 ºC ≤ Temp ≤ 22.0ºC	243.4	4.17	7.50	once/week	composite
	22.1 ºC ≤ Temp ≤ 24.0ºC	213.7	3.66	7.50	once/week	composite
	24.1 ºC ≤ Temp ≤ 26.0ºC	188.0	3.22	7.50	once/week	composite
	26.1 ºC ≤ Temp ≤ 28.0ºC	165.2	2.83	7.08	once/week	composite
	28.1 ºC ≥ Temp	145.4	2.49	6.23	once/week	composite
(June – October)		140.2	2.4	6.1	once/week	composite
(November – March)		397.0	6.8	17.0	once/week	composite
Dissolved Oxygen (DO)						
(May – October)		N/A	3.0 (Monthly Avg. Min.)		once/week	grab
(November – April)		N/A	5.0 (Monthly Avg. Min.)		once/week	grab
Fecal Coliform Bacteria (FCB)			(colonies/100ml)			
(April – September)		N/A	200	400	once/week	grab
(October – March)		N/A	1000	2000	once/week	grab

Effluent Characteristics	Discharge Limitations			Monitoring Requirements	
	Mass (lbs/day, unless otherwise specified)	Concentration (mg/l, unless otherwise specified)		Frequency[5]	Sample Type
	Monthly Avg.	Monthly Avg.	7-Day Avg.		
Effluent Temperature[7]					
(April – May)	N/A	N/A	Report °C	three/week	grab
Nitrates plus Nitrites as Nitrogen ($NO_3 + NO_2$-N)	Report	Report	Report	once/month	grab
Total Recoverable Copper[2]	0.71	12.20 µg/l	24.48 µg/l	once/month	composite
Total Recoverable Selenium[2]	0.33	5.58 µg/l	11.20 µg/l	once/month	composite
Total Recoverable Cyanide[2, 8]	0.34	5.80 µg/l	11.64 µg/l	once/month	grab
Total Recoverable Mercury[2]	Report	Report µg/l	Report µg/l	once/year	grab
pH	N/A	Minimum 6.0 s.u.	Maximum 9.0 s.u.	once/week	grab
Pimephales promelas (Chronic)[4, 15]		7-Day Average			
Pass/Fail Lethality (7-day NOEC) TLP6C		Report (Pass=0/Fail=1)		once/quarter	composite
Pass/Fail Growth (7-day NOEC)TGP6C		Report (Pass=0/Fail=1)		once/quarter	composite
Survival (7-day NOEC) TOP6C		Report %		once/quarter	composite
Coefficient of Variation (Growth) TQP6C		Report %		once/quarter	composite
Growth (7-day NOEC) TPP6C		Report %		once/quarter	composite
Pass/Fail Retest 1 (7-day NOEC) 22418		Report (Pass=0/Fail=1)		once/month[13]	composite
Pass/Fail Retest 2 (7-day NOEC) 22419		Report (Pass=0/Fail=1)		once/month[13]	composite
Pass/Fail Retest 3 (7-day NOEC) 51444		Report (Pass=0/Fail=1)		once/month[13]	composite

Effluent Characteristics	Discharge Limitations			Monitoring Requirements	
	Mass (lbs/day, unless otherwise specified)	Concentration (mg/l, unless otherwise specified)		Frequency[5]	Sample Type
	Monthly Avg.	Monthly Avg.	7-Day Avg.		
Chronic WET Limit					
Ceriodaphnia dubia (Chronic)[3,4, 14] (7-day NOEC) 51710	N/A	Lethality not < 100% Sub-lethality not < 80%		once/two months	composite
Ceriodaphnia dubia (Chronic)[3]		7-Day Average			
Pass/Fail Lethality (7-day NOEC) TLP3B		Report (Pass=0/Fail=1)		once/two months	composite
Pass/Fail production (7-day NOEC)TGP3B		Report (Pass=0/Fail=1)		once/two months	composite
Survival (7-day NOEC) TOP3B		Report %		once/two months	composite
Coefficient of Variation (Reproduction) TQP3B		Report %		once/two months	composite
Reproduction (7-day NOEC) TPP3B		Report %		once/two months	composite

1 See Condition No. 5 of Part II (SSO Condition). If there are no overflows during the entire month, report "zero" (0).
2 See Condition No. 8 of Part II (Metals Condition).
3 See Condition No. 9 of Part II (Chronic WET Limit Condition).
4 When a Long Term Discharge as defined in footnote 12 below occurs, chronic testing for *P. promelas* must be conducted once per quarter. Testing for *C. dubia* must be conducted once every two months. The *C. dubia* test for the time frame of May – June must be conducted in the month of June.
5 Samples must be taken daily during the first discharge of the monitoring period. The total number of samples for the monitoring period are not required to exceed the minimum requirement set forth in this table.
6 The temperature based tiered NH_3-N limits are applicable only during the months of April and May. The permittee is required to submit DMRs for each tier of NH_3-N limits for the months of April and May, regardless if a temperature occurred in that tier when an NH3-N sample was taken. If a temperature did not occur in a temperature range when the sample was taken, that portion of the DMR must be marked "Not required."
7 The permittee must take one of the required temperature readings during the composite sampling required for NH_3-N. The temperature reading taken will determine which tier of NH_3-N limits will be applicable to that sample. The temperature readings must be done in accordance with the procedures set forth in Part II, Condition 10 of this permit. On the day that the NH_3-N sample is taken, the temperature readings must be taken between 12:00 pm – 3:00 pm Central time.
8 Since the allowable MQL for Cyanide is above the permit limit, compliance with this limit will be demonstrated using the method MQL of 10 µg/l. If the test result is below the MQL achieved but above the detection level, the permittee must report NODI = Q. If Cyanide is not detected, the permittee must report NODI=B.
9 The term "5 days" is defined as five consecutive 24 hour periods.
10 Reserved.
11 A "Short Term Discharge" is defined as a discharge of not more than five consecutive 24-hour periods. Separate short term discharge events must be separated by more than five days and must not total more than 10 days during a 30 day period.
12 A "Long Term Discharge" is defined as discharges of more than five consecutive 24-hour periods or separate short term discharges which are not separated by at least five days or separate short term discharge events totaling more than 10 days during a 30 day period.
13 CONDITIONAL REPORTING: Use only if conducting retests due to a test failure (demonstration of significant toxic effects at or below the critical dilution). If testing on a quarterly basis, the permittee may substitute one of the retests in lieu of one routine toxicity test. If retests are not required, Report NODI=9 (Conditional Monitoring - Not Required This Period) under retest parameters (reported on a quarterly DMR). This condition applies to *P. promelas* and *D. pulex*.
14 As per Condition 9 of Part II. (Chronic WET Condition), the permittee shall submit the results of the valid monthly increased frequency toxicity tests on the Unscheduled DMRs (51710 TLP3B, TOP3B, TPP3B, TGP3B, TQP3B. This condition applies to *C. dubia*.
15 See Condition No. 17 of Part II. (WET Testing Condition)

Oil, grease, or petrochemical substances shall not be present in receiving waters to the extent that they produce globules or other residue or any visible, colored film on the surface or coat the banks and/or bottoms of the waterbody or adversely affect any of the associated biota. There shall be no visible sheen as defined in Part IV of this permit.

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge during the entire monitoring period. Samples shall be taken after the DAF unit and prior to entering the man-made ditch.

All and each unauthorized Sanitary Sewer Overflow (SSO) must be reported to DEQ. See Condition No. 5 of Part II. All SSOs must be reported under Outfall 001.

PART I
PERMIT REQUIREMENTS

SECTION A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS: OUTFALL 010S - treated municipal wastewater (discharged to the Ouachita River via the joint pipeline).

During the period beginning on the effective date and lasting until the date of expiration, the permittee is authorized to discharge from Outfall 010S. Such discharges shall be limited and monitored by the permittee as specified below as well as Parts II and III. See Part IV for all definitions and calculations.

Effluent Characteristics	Discharge Limitations				Monitoring Requirements	
	Mass (lbs/day, unless otherwise specified)		Concentration (mg/l, unless otherwise specified)		Frequency	Sample Type
	Monthly Average	Daily Maximum	Monthly Avg.	Daily Max.		
Flow	N/A	N/A	Report	7 MGD	once/day	totalizing meter
Carbonaceous Biochemical Oxygen Demand ($CBOD_5$)						
(May – October)	1119.17	1678.75	22.5	33.8	three/week[4, 5]	composite
(November – April)	1323.47	1985.15	25	39	three/week[4, 5]	composite
Total Suspended Solids (TSS)	1751.4	2627.1	30	45	once/day[4]	composite
Ammonia Nitrogen (NH_3-N)						
(May – October)	496.3	624	N/A	N/A	three/week[4, 5]	composite
(November – April)	1605.5	2287	N/A	N/A	three/week[4, 5]	composite
Dissolved Oxygen[1]	N/A	N/A	Report, inst. min.		three/week[4, 5]	grab
Fecal Coliform Bacteria (FCB)			(colonies/100ml)			
(May – September)	N/A	N/A	200	400	three/week[4, 5]	grab
(October – April)	N/A	N/A	1000	2000	three/week[4, 5]	grab
Mercury, Total Recoverable[3]	N/A	N/A	N/A	0.19 µg/l	once/month	composite
Cadmium, Total Recoverable[3]	0.78	1.56	N/A	N/A	once/month	composite
Hexavalent Chromium, Dissolved[3]	3.37	6.76	N/A	N/A	once/month	composite
Copper, Total Recoverable[3]	2.88	5.78	N/A	N/A	once/month	composite
Lead, Total Recoverable[3]	1.40	2.80	N/A	N/A	once/month	composite
Nickel, Total Recoverable[3]	49.81	99.93	N/A	N/A	once/month	composite
Selenium, Total Recoverable[3]	2.30	4.62	N/A	N/A	once/month	composite
Silver, Total Recoverable[3]	0.27	0.55	N/A	N/A	once/month	composite
Zinc, Total Recoverable[3]	25.73	51.63	N/A	N/A	once/month	composite
Chromium (III), Total Recoverable[3]	138.31	277.50	N/A	N/A	once/month	composite
Cyanide, Total Recoverable[3]	2.39	4.81	N/A	N/A	once/month	grab
Sulfates	N/A	N/A	Report	Report	once/week	grab
Chlorides	N/A	N/A	Report	Report	once/week	grab
Total Dissolved Solids (TDS)	N/A	N/A	Report	Report	once/week	grab
Oil and Grease (O & G)	583.8	875.7	N/A	N/A	two/week	grab
Total Phosphorus	N/A	N/A	Report	Report	once/day[4]	composite
pH	N/A	N/A	Minimum 6.0 s.u.	Maximum 9.0 s.u.	once/day	grab
Chronic WET Testing[2]	N/A		N/A	N/A	once/quarter	composite

Effluent Characteristics	Discharge Limitations				Monitoring Requirements	
	Mass (lbs/day, unless otherwise specified)		Concentration (mg/l, unless otherwise specified)		Frequency	Sample Type
	Monthly Average	Daily Maximum	Monthly Avg.	Daily Max.		
***Pimephales promelas* (Chronic)[2]**			7-Day Minimum			
Pass/Fail Lethality (7-day NOEC) TLP6C			Report (Pass=0/Fail=1)		once/quarter	composite
Pass/Fail Growth (7-day NOEC) TGP6C			Report (Pass=0/Fail=1)		once/quarter	composite
Survival (7-day NOEC) TOP6C			Report %		once/quarter	composite
Coefficient of Variation (Growth) TQP6C			Report %		once/quarter	composite
Growth (7-day NOEC) TPP6C			Report %		once/quarter	composite
Pass/Fail Retest 1 (7-day NOEC) 22418			Report (Pass=0/Fail=1)		once/month[6]	composite
Pass/Fail Retest 2 (7-day NOEC) 22419			Report (Pass=0/Fail=1)		once/month[6]	composite
Pass/Fail Retest 3 (7-day NOEC) 51444			Report (Pass=0/Fail=1)		once/month[6]	composite
	N/A					
***Ceriodaphnia dubia* (Chronic)[2]**			7-Day Minimum			
Pass/Fail Lethality (7-day NOEC) TLP3B			Report (Pass=0/Fail=1)		once/quarter	composite
Pass/Fail Reproduction (7-day NOEC) TGP3B			Report (Pass=0/Fail=1)		once/quarter	composite
Survival (7-day NOEC) TOP3B			Report %		once/quarter	composite
Coefficient of Variation (Reproduction) TQP3B			Report %		once/quarter	composite
Reproduction (7-day NOEC) TPP3B			Report %		once/quarter	composite
Pass/Fail Retest 1 (7-day NOEC) 22415			Report (Pass=0/Fail=1)		once/month[6]	composite
Pass/Fail Retest 2 (7-day NOEC) 22416			Report (Pass=0/Fail=1)		once/month[6]	composite
Pass/Fail Retest 3 (7-day NOEC) 51443			Report (Pass=0/Fail=1)		once/month[6]	composite

1 See Item #13.B. of Part IV.
2 See Condition No. 17 of Part II. (WET Testing Condition)
3 See Condition No. 8 of Part II. (Metals Condition)
4 See Condition No. 16 of Part II. (Monitoring Frequency Reduction)
5 The monitoring frequencies have been reduced in accordance with Part II, Condition No. 16. The monitoring frequencies may be increased if any exceedances of the permit limits are reported.
6 CONDITIONAL REPORTING: Use only if conducting retests due to a test failure (demonstration of significant toxic effects at or below the critical dilution). If testing on a quarterly basis, the permittee may substitute one of the retests in lieu of one routine toxicity test. If retests are not required, Report NODI=9 (Conditional Monitoring - Not Required This Period) under retest parameters (reported on a quarterly DMR). This condition applies to *P. promelas* and *C. dubia*.

Oil, grease, or petrochemical substances shall not be present in receiving waters to the extent that they produce globules or other residue or any visible, colored film on the surface or coat the banks and/or bottoms of the waterbody or adversely affect any of the associated biota. There shall be no visible sheen as defined in Part IV of this permit.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following locations located downstream of the DAF unit and prior to commingling with any other wastewaters.

All and each unauthorized Sanitary Sewer Overflow (SSO) must be reported to DEQ. See Condition No. 5 of Part II. All SSOs must be reported under Outfall 001.

SECTION B. PERMIT COMPLIANCE SCHEDULE

Pursuant to 40 C.F.R. § 122.44(j)(2)(ii), the permittee shall submit either of the following items within sixty (60) days of the effective date of this permit:

1. A **WRITTEN CERTIFICATION** that a technical evaluation has demonstrated that the existing technically based local limits (TBLLs) are based on current state water quality standards and are adequate to prevent pass through of pollutants, inhibition of or interference with the treatment facility, worker health and safety problems, and sludge contamination.

2. A **WRITTEN NOTIFICATION** that a technical evaluation revising the current TBLLs will be submitted within twelve (12) months of the effective date of this permit.

PART II
OTHER CONDITIONS

1. The operator of this wastewater treatment facility shall be licensed as Class IV by the State of Arkansas in accordance with APC&EC Rule 3.

2. For publicly owned treatment works, the 30-day average percent removal for Carbonaceous Biochemical Oxygen Demand ($CBOD_5$) and Total Suspended Solids (TSS) shall not be less than 85 percent unless otherwise authorized by the permitting authority in accordance with 40 C.F.R. § 133.102, as adopted by reference in APC&EC Rule 6.

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

4. Other Specified Monitoring Requirements

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

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

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

5. Sanitary Sewer Overflow (SSO) Reporting Requirements:

   A. A sanitary sewer overflow is any spill, release or diversion of wastewater from a sanitary sewer collection system including:

1. Any overflow, whether it discharges to the waters of the state or not.
2. An overflow of wastewater, including a wastewater backup into a building (other than a backup caused solely by a blockage or other malfunction in a privately owned sewer or building lateral), even if that overflow does not reach waters of the state.

B. 24-Hour Reporting:

When an SSO is detected – no matter how small – it must be reported within 24 hours of its discovery to DEQ's Water Quality Enforcement by using the online form in paragraph C below (the preferred method), by phone at (501) 682-0638, or by email at ssoadeq@adeq.state.ar.us.

This initial 24-hour report should include the following information:

1. Permit Number
2. Location of overflow (manhole number or street address)
3. The receiving water (if applicable)
4. Cause of overflow (if known)
5. Estimated volume of overflow so far
6. Total duration of the overflow

C. 5-Day Follow-Up Written Web Reporting:

A written report of overflows shall be provided to DEQ within 5 days of the 24-hour oral report. A follow-up written report (5-day report) can be filled-in and submitted on the DEQ Office of Water Quality/Enforcement Branch Web page at:

https://www.adeq.state.ar.us/water/enforcement/sso/submit.aspx?type=s

D. 24-Hour and 5-Day Reporting:

If the 24-hour report submitted includes all of the information requested in the 5-day report described in Paragraph C above, then a follow-up 5-day report is not required.

E. Reporting for All SSOs on DMR:

At the end of the month, total the daily occurrences and volumes from all locations on your system and report this number on the DMR. For counting occurrences, each location on the sanitary sewer system where there is an overflow, spill, release, or diversion of wastewater on a given day is counted as one occurrence. For example, if on a given day overflows occur from a manhole at one location and from a damaged pipe at another location then you should record two occurrences for that day.

6. Best Management Practices (BMPs), as defined in Part IV.7, must be implemented for the facility along with the collection system to prevent or reduce the pollution of waters of the State from stormwater runoff, spills or leaks, sludge or waste disposal, or drainage from raw

sewage. The permittee must amend the BMPs whenever there is a change in the facility or a change in the operation of the facility.

7. Contributing Industries and Pretreatment Requirements

   A. The permittee shall operate an industrial pretreatment program in accordance with Section 402(b)(8) of the Clean Water Act (CWA), the General Pretreatment Regulations (40 C.F.R. Part 403) and the approved POTW pretreatment program submitted by the permittee. The pretreatment program was originally approved on March 22, 1985, modified on August 16, 2002 and once again modified and approved on January 24, 2013 to be compliant with the October 2005 Streamlining revisions to the Federal Pretreatment Regulations in 40 C.F.R. Part 403. The POTW pretreatment program is hereby incorporated by reference and shall be implemented in a manner consistent with the following requirements:

      (1) Industrial user information shall be updated at a frequency adequate to ensure that all IUs are properly characterized at all times;

      (2) The frequency and nature of industrial user compliance monitoring activities by the permittee shall be commensurate with the character, consistency and volume of waste. The permittee must inspect and sample the effluent from each Significant Industrial User in accordance with 40 C.F.R. § 403.8(f)(2)(v). This is in addition to any industrial self-monitoring activities;

      (3) The permittee shall enforce and obtain remedies for noncompliance by any industrial users with applicable pretreatment standards and requirements;

      (4) The permittee shall control through permit, order, or similar means, the contribution to the POTW by each Industrial User to ensure compliance with applicable Pretreatment Standards and Requirements. In the case of Industrial Users identified as significant under 40 C.F.R. § 403.3 (v), this control shall be achieved through individual control mechanisms, in accordance with 40 C.F.R. § 403.8(f)(1)(iii). Control mechanisms must be enforceable and contain, at a minimum, the following conditions:

         a. Statement of duration (in no case more than five years);

         b. Statement of non-transferability without, at a minimum, prior notification to the POTW and provision of a copy of the existing control mechanism to the new owner or operator;

         c. Effluent limits, including Best Management Practices, based on applicable general Pretreatment Standards, categorical Pretreatment Standards, local limits, and State and local law;

         d. Self-monitoring, sampling, reporting, notification and recordkeeping requirements, including an identification of the pollutants to be monitored, sampling location, sampling frequency, and sample type, based on the applicable general Pretreatment

Standards in 40 C.F.R. Part 403, categorical Pretreatment Standards, local limits, and State and local law;

e. Statement of applicable civil and criminal penalties for violation of Pretreatment Standards and requirements, and any applicable compliance schedule. Such schedules may not extend the compliance date beyond federal deadlines; and

f. Requirements to control slug discharges, if determined by the POTW to be necessary.

(5) The permittee shall evaluate, whether each Significant Industrial User needs a plan or other action to control slug discharges, in accordance with 40 C.F.R. § 403.8(f)(2)(vi);

(6) The permittee shall provide adequate staff, equipment, and support capabilities to carry out all elements of the pretreatment program; and

(7) The approved program shall not be modified by the permittee without the prior approval of the DEQ.

B. The permittee shall establish and enforce specific limits to implement the provisions of 40 C.F.R. §§ 403.5(a) and (b), as required by 40 C.F.R. § 403.5(c). POTWs may develop Best Management Practices (BMPs) to implement paragraphs 40 C.F.R. § 403.5(c)(1) and (c)(2). Such BMPs shall be considered local limits and Pretreatment Standards. Each POTW with an approved pretreatment program shall continue to develop these limits as necessary and effectively enforce such limits.

The permittee shall submit, within sixty (60) days of the effective date of this permit, (1) a **WRITTEN CERTIFICATION** that a technical evaluation has demonstrated that the existing technically based local limits (TBLLs) are based on current state water quality standards and are adequate to prevent pass through of pollutants, inhibition of or interference with the treatment facility, worker health and safety problems, and sludge contamination, or (2) a **WRITTEN NOTIFICATION** that a technical evaluation revising the current TBLLs will be submitted within 12 months of the effective date of this permit.

All specific prohibitions or limits developed under this requirement are deemed to be conditions of this permit. The specific prohibitions set out in 40 C.F.R. § 403.5(b) shall be enforced by the permittee unless modified under this provision.

C. The permittee shall analyze the treatment facility influent and effluent for the presence of the toxic pollutants listed in 40 C.F.R. Part 122, Appendix D (NPDES Application Testing Requirements) Table II at least once per year and the toxic pollutants in Table III at least four (4) times per year (quarterly). If, based upon information available to the permittee, there is reason to suspect the presence of any toxic or hazardous pollutant listed in Table V of 40 C.F.R. Part 122, Appendix D, or any other pollutant, known or suspected to adversely affect treatment plant operation, receiving water quality, or solids disposal procedures, analysis for those pollutants shall be performed at least four (4) times per year (quarterly) on both the influent and the effluent.

The influent and effluent samples collected shall be composite samples, as defined in Part IV.8 of the permit. In accordance with 40 C.F.R. § 122.21(j)(4)(viii), where composite samples are inappropriate due to sampling, holding time or analytical constraints, at least four (4) grab samples shall be taken at equal intervals over a representative 24-hour period. Sampling and analytical procedures shall be in accordance with guidelines established in 40 C.F.R. Part 136.

D. The permittee shall prepare annually a list of Industrial Users which, during the preceding twelve months (the Pretreatment "Reporting Year"), were in significant noncompliance with applicable pretreatment requirements. For the purposes of this Part, significant noncompliance shall be determined based upon the more stringent of either criteria established at 40 C.F.R. § 403.8(f)(2)(viii) or criteria established in the approved POTW pretreatment program. This list is to be published annually during the month of March in a newspaper of general circulation that provides meaningful public notice within the jurisdiction(s) served by the POTW.

Note: For permittees with multiple NPDES permits, only one (1) updated pretreatment program status report ("Annual Report") is required. The annual report shall reference the Tracking NPDES Permit Number AR0033723 for the permittee's approved Pretreatment Program.

In addition, by 4:30 P.M. Central Time (if electronically submitted) OR postmarked on or before the last business day in the month of March the permittee shall submit an updated pretreatment program status report to the DEQ containing the following information:

(1) An updated list of all significant industrial users. The list must also identify:

a. Industrial Users classified as Non-Significant Categorical Industrial Users (NSCIUs) or Middle-Tier CIUs.

b. Industrial Users subject to categorical Pretreatment Standards that are subject to reduced monitoring and reporting requirements under 40 C.F.R. §§ 403.12(e)(2) and (3).

c. Industrial Users subject to the categorical Pretreatment Standards of the following Point Source Categories: Organic Chemicals, Plastics, and Synthetic Fibers - 40 C.F.R. Part 414, Petroleum Refining - 40 C.F.R. Part 419, and Pesticide Chemicals - 40 C.F.R. Part 455 and for which the Control Authority has chosen to use the concentration-based standards rather than converting them to flow-based mass standards as allowed at 40 C.F.R. § 403.6(c)(6).

d. Categorical Industrial Users subject to concentration-based standards for which the Control Authority has chosen to convert the concentration-based standards to equivalent mass limits, as allowed at 40 C.F.R. § 403.6(c)(5).

e. General Control Mechanisms used for similar groups of SIUs along with the substantially similar types of operations and the types of wastes that are the same,

for each separate General Control Mechanism, as allowed at 40 C.F.R. § 403.8(f)(1)(iii).

f. Best Management Practices or Pollution Prevention alternatives required by a categorical Pretreatment Standard or as a local limit requirement that are implemented and documentation to demonstrate compliance, as required at 40 C.F.R. §§ 403(b), (e) and (h).

(2) For each industrial user listed the following information shall be included:

a. Standard Industrial Classification (SIC) code, North American Industry Classification System (NAICS) code and categorical determination;

b. Control document status, i.e., whether the user has an effective control document and the date such document was last issued, reissued or modified. Additionally, indicate which industrial users were added to the system, or newly identified, within the previous 12 months;

c. A summary of all monitoring activities performed within the previous 12 months. The following information shall be reported:

i. total number of inspections performed;

ii. total number of sampling visits made;

d. Status of compliance with both effluent limitations and reporting requirements. Compliance status shall be defined as follows:

i. Compliant (C) - no violations during the previous 12-month period;

ii. Non-compliant (NC) - one or more violations during the previous 12 months but does not meet the criteria for significantly noncompliant industrial users;

iii. Significant Noncompliance (SNC) - in accordance with requirements described in Item D above; and

e. For significantly noncompliant industrial users, indicate the nature of the violations, the type and number of actions taken (notice of violation, administrative order, criminal or civil suit, fines or penalties collected, *etc.*) and current compliance status. If ANY industrial user was on a schedule to attain compliance with effluent limits, indicate the date the schedule was issued and the date compliance is to be attained.

(3) A list of all significant industrial users whose authorization to discharge was terminated or revoked during the preceding 12-month period and the reason for termination;

(4) A report on any interference, pass through, upset or POTW permit violations known or suspected to be caused by industrial contributors and actions taken by the permittee in response;

(5) The results of all influent and effluent analyses performed pursuant to Item C above;

(6) An influent/effluent summary chart containing the monthly average water quality-based effluent concentration demonstrating compliance with permit limits or the water quality levels not to exceed as developed in the permittee's approved technically based local limits document.

(7) The information requested may be submitted in tabular form as per the example tables provided for your convenience (See Attachments II, III and IV); and

(8) A copy of the newspaper publication of the significantly noncompliant industrial users giving the name of the newspaper and the date published.

E. The permittee shall provide adequate notice of the following:

(1) Any new introduction of pollutants into the treatment works from an indirect discharger that would be subject to Sections 301 and 306 of the CWA if it were directly discharging those pollutants; and

(2) Any substantial change in the volume or character of pollutants being introduced into the treatment works by a source introducing pollutants into the treatment works at the time of issuance of the permit.

Adequate notice shall include information on (i) the quality and quantity of effluent to be introduced into the treatment works, and (ii) any anticipated impact of the change on the quality or quantity of effluent to be discharged from the POTW.

8. The permittee may use any EPA approved method based on 40 C.F.R. Part 136 provided the MQL for the chosen method is equal to or less than what has been specified in chart below:

Pollutant	MQL (µg/l)
Mercury, Total Recoverable	0.005
Cadmium, Total Recoverable	0.5
Chromium (III), Total Recoverable	10
Hexavalent Chromium, Dissolved	10
Copper, Total Recoverable	0.5
Lead, Total Recoverable	0.5
Nickel, Total Recoverable	0.5
Selenium, Total Recoverable	5
Silver, Total Recoverable	0.5

Pollutant	MQL (µg/l)
Zinc, Total Recoverable	20
Cyanide, Total Recoverable	10

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

$$MQL = 3.3 \times MDL$$

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

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

This condition applies to *C. dubia* only.

A. SCOPE AND METHODOLOGY

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

APPLICABLE TO FINAL OUTFALL: 001

REPORTED ON DMR AS FINAL OUTFALL: 001

CRITICAL DILUTION (%): 100%

EFFLUENT DILUTION SERIES (%): 32%, 45%, 56%, 80%, & 100%

CHRONIC LIMIT - LETHALITY: not < 100%

CHRONIC LIMIT - SUB-LETHAL: not < 80%

SCHEDULE OF COMPLIANCE: NO

TESTING FREQUENCY(applies if Long Term Discharge as defined in footnote 11 on Page 4 of Part IA occurs during period):	Once/two months – *C. dubia*
COMPOSITE SAMPLE TYPE:	Defined in paragraph B.iv.a
TEST SPECIES/METHODS:	40 C.F.R. Part 136

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

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

iii. The conditions of this item are effective beginning with the effective date of the WET limit. When the effluent fails the chronic endpoint below the required limit specified in Item A.i., the permittee shall be considered in violation of this permit limit and the frequency for the affected species will increase to monthly until such time compliance with the No Observed Effect Concentration (NOEC) effluent limitation is demonstrated for a period of three consecutive months, at which time the permittee may return to the testing frequency stated in PART I of this permit. The purpose of the increased frequency WET testing is to determine the duration of a toxic event. A test that meets all test acceptability criteria and demonstrates significant toxic effects does not need additional confirmation. Such testing cannot confirm or disprove a previous test result.

iv. If under a TRE, the permittee may conduct quarterly testing as a minimum monitoring requirement for the organism(s) under investigation for the duration of the TRE. Upon completion of the TRE, monitoring will revert back to the conditions specified in Item A.iii.

v. This permit may be reopened to require chemical specific effluent limits, additional testing, and/or other appropriate actions to address toxicity.

B. REQUIRED TOXICITY TESTING CONDITIONS

i. Test Acceptance

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

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

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

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

d. (reserved).

e. The percent coefficient of variation between replicates shall be 40% or less in the control (0% effluent) for: the young of surviving females in the Ceriodaphnia dubia reproduction test.

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

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

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

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

j. (reserved)

ii. Statistical Interpretation

a. For the Ceriodaphnia dubia survival test, the statistical analyses used to determine if there is a significant difference between the control and the critical dilution shall

be Fisher's Exact Test as described in EPA-821-R-02-013 or the most recent update thereof.

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

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

iii. Dilution Water

a. Dilution water used in the toxicity tests will be receiving water collected as close to the point of discharge as possible but unaffected by the discharge. The permittee shall substitute synthetic dilution water of similar pH, hardness, and alkalinity to the closest downstream perennial water where the receiving stream is classified as intermittent or where the receiving stream has no flow due to zero flow conditions.

b. If the receiving water is unsatisfactory as a result of instream toxicity (fails to fulfill the test acceptance criteria of Item B.i), the permittee may substitute synthetic dilution water for the receiving water in all subsequent tests provided the unacceptable receiving water test met the following stipulations:

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

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

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

(4) the synthetic dilution water shall have a pH, hardness, and alkalinity similar to that of the receiving water or closest downstream perennial water not adversely affected by the discharge, provided the magnitude of these parameters will not cause toxicity in the synthetic dilution water.

iv. Samples and Composites

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

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

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

d. The permittee must collect the composite samples so that the maximum holding time for any effluent sample shall not exceed 72 hours. The permittee must have initiated the toxicity test within 36 hours after the collection of the last portion of the first composite sample. Samples shall be chilled to between 0 and 6 degrees Centigrade during collection, shipping, and/or storage.

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

f. MULTIPLE OUTFALLS: If the provisions of this section are applicable to multiple outfalls, the permittee shall combine the composite effluent samples in proportion to the average flow from the outfalls listed in Item A.i above for the day the sample was collected. The permittee shall perform the toxicity test on the flow-weighted composite of the outfall samples.

g. If chlorination is part of the treatment process, the permittee shall not allow the sample to be dechlorinated at the laboratory. At the time of sample collection the

permittee shall measure the TRC of the effluent. The measured concentration of TRC for each sample shall be included in the lab report submitted by the permittee.

C. REPORTING

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

ii. The permittee shall report the Whole Effluent Toxicity NOECs under Parameter No. 51710 for *C. dubia* on the Scheduled DMR for that reporting period in accordance with PART III.D.4 of this permit.

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

iii. The permittee shall submit the results of the valid toxicity test on the Scheduled DMR for that reporting period in accordance with PART III.D.4 of this permit, as follows below. The permittee shall submit the results of the valid monthly increased frequency toxicity tests on the Unscheduled DMRs. If testing on a quarterly basis, the permittee may substitute one of the monthly increased frequency toxicity tests in lieu of one Scheduled toxicity test on the Scheduled DMR. Only results of valid tests are to be reported on a DMR.

a. (reserved)

b. Ceriodaphnia dubia

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

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

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

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

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

(6) Report the lowest NOEC value for survival or reproduction, Limit Parameter No. 51710

(7) The permittee shall submit the results of the monthly increased frequency toxicity tests on the Unscheduled DMRs.

D. Reserved.

E. TOXICITY RE-OPENER

i. If the TRE has identified the source of toxicity and led to the successful elimination of effluent toxicity at the critical dilution, the WET final effluent limits may be replaced by monitoring and reporting only requirement thru a major permit modification. Otherwise, the permittee must comply with the final WET effluent limits.

ii. If the TRE has not led to the successful elimination of effluent toxicity at the critical dilution, but has identified a causal parameter, the WET final effluent limit may be replaced by monitoring and reporting only requirement thru a major permit modification, with the addition of a limit for the causal parameter.

(Note: A modified permit must be effective prior to the effective date of the WET limits.)

F. MONITORING FREQUENCY REDUCTION

This section does not apply to any species for which the permit establishes new whole effluent toxicity (WET) limits. For the first five years after the effective date of a WET limit, the minimum monitoring frequency for the affected species is once per quarter or once per month (in accordance with Item A.i.).

i. The permittee may apply for a testing frequency reduction upon the successful completion of the first four consecutive quarters or first twelve consecutive months (in accordance with Item A.i.) of the current permit term of testing for a test species, with no lethal or sub-lethal effects demonstrated at or below the critical dilution. If granted, the monitoring frequency for that test species may be reduced to not less than twice per year for the more sensitive test species (usually the *Ceriodaphnia dubia*).

ii. CERTIFICATION - The permittee must certify in writing that no test failures have occurred and that all tests meet all test acceptability criteria in Item B.i. above. In addition the permittee must provide a list with each test performed including test initiation date, species, NOECs for lethal and sub-lethal effects and the maximum coefficient of variation for the controls. Upon review and acceptance of this information the agency will issue a letter of confirmation of the monitoring frequency

reduction. A copy of the letter will be forwarded to the agency's Permit Compliance System section to update the permit reporting requirements.

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

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

10. The permittee must take the temperature samples at different times of the day. For instance, after the first sample is taken in the month of April, the following samples must be taken a minimum of two hours before or after the previous sample. All times of the day must be covered in four samples, e.g., 8 AM, 10:30 AM, 1:00 PM, and 4:00 PM. These times are meant for example purposes only and are not required sampling times. The permittee must also vary the days of the week on which the samples are taken. Only one day from the previous calendar week may be repeated. The day which is repeated must vary such that a sample isn't taken on the same day every week. This condition applies only to the temperature monitoring requirements contained in Part IA of this permit.

11. Reserved.

12. The permittee shall notify the Division within 24 hours of any emergency or maintenance event that results in diverting wastewater from Outfall 010S to Outfall 001 permitted under NPDES No. AR0033723. For non-emergency and non-maintenance events that may result in diverting wastewater from Outfall 010S to Outfall 001 permitted under NPDES No. AR0033723, the permittee must provide notice and an explanation of the anticipated diversion to the Division at least two weeks in advance of any such event; and the Division may, at its discretion, condition the diversion of wastewater from Outfall 010S to Outfall 001 permitted under NPDES No. AR0033723 as reasonably necessary to protect human health and the environment.

13. Reserved.

14. Reserved.

15. All pollutants listed in Part IA for Outfall 010S of this permit must be sampled concurrently with the sampling requirements for Outfall 010 at Lion Oil Company (AR0000647), Outfall 010 at El Dorado Chemical Company (AR0000752), Outfall 010 at Great Lakes Chemical Corporation – Central Plant (AR0001171), and Outfall 010R for the joint pipeline (AR0050296). For the purposes of this permit, concurrently shall mean that the samples are taken within a two-hour period or under the terms of a sampling plan submitted to and approved by the Division. Any sampling plan submitted to the Division must demonstrate that the samples will be representative of each permittee's discharge to the joint pipeline.

16. After 365 consecutive data points have been collected at Outfall 010S, the permittee may request (in writing) reductions in monitoring frequencies for those pollutants which have monitoring requirements in excess of three times per week except for pH and flow. The internal outfall monitoring frequency will be reduced to three times per week provided that the permittees submit certification that following conditions have been met:

    A. Condition #15 above of Part II; and
    B. No demonstrated violations of the permit limits during this time period.

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

    For outfall 001, this condition only applies to *P. promelas*.

    A. SCOPE AND METHODOLOGY

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

APPLICABLE TO FINAL OUTFALL:	010S & 001
REPORTED ON DMR AS FINAL OUTFALL:	010S & 001
CRITICAL DILUTION 010S (%):	5.5%
EFFLUENT DILUTION SERIES 010S (%):	2.3%, 3.1%, 4.1%, 5.5%, & 7.3%
CRITICAL DILUTION 001 (%):	100%
EFFLUENT DILUTION SERIES 001 (%):	32%, 42%, 56%, 80%, & 100%
TESTING FREQUENCY:	once/quarter
COMPOSITE SAMPLE TYPE:	Defined in paragraph C.iv.a
TEST SPECIES/METHODS:	40 C.F.R. Part 136

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

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

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

iii. This permit may be reopened to require whole effluent toxicity limits, chemical specific effluent limits, additional testing, and/or other appropriate actions to address toxicity.

B. PERSISTENT LETHAL and/or SUB-LETHAL EFFECTS

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

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

i. Part I Testing Frequency Other Than Monthly

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

submitted with the period discharge monitoring report (DMR) to the permitting authority for review.

b. IF LETHAL EFFECTS HAVE BEEN DEMONSTRATED If any of the retests demonstrates significant lethal effects at or below the critical dilution, the permittee shall initiate Toxicity Reduction Evaluation (TRE) requirements as specified in Item E of this section. The permittee shall notify DEQ in writing within 5 days of the failure of any retest, and the TRE initiation date will be the test completion date of the first failed retest. A TRE may also be required due to a demonstration of intermittent lethal effects at or below the critical dilution, or for failure to perform the required retests. A TRE required based on lethal effects should consider any sub-lethal effects as well.

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

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

C. REQUIRED TOXICITY TESTING CONDITIONS

i. Test Acceptance

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

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

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

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

d. The mean dry weight of surviving Fathead minnow larvae at the end of the 7 days in the control (0% effluent) must be 0.25 mg per larva or greater.

e. The percent coefficient of variation between replicates shall be 40% or less in the control (0% effluent) for: the young of surviving females in the Ceriodaphnia dubia reproduction test; the growth and survival endpoints of the Fathead minnow test.

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

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

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

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

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

ii. Statistical Interpretation

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

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

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

iii. Dilution Water

a. Dilution water used in the toxicity tests will be receiving water collected as close to the point of discharge as possible but unaffected by the discharge. The permittee

shall substitute synthetic dilution water of similar pH, hardness, and alkalinity to the closest downstream perennial water for;

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

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

b. If the receiving water is unsatisfactory as a result of instream toxicity (fails to fulfill the test acceptance criteria of Item C.i), the permittee may substitute synthetic dilution water for the receiving water in all subsequent tests provided the unacceptable receiving water test met the following stipulations:

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

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

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

(4) the synthetic dilution water shall have a pH, hardness, and alkalinity similar to that of the receiving water or closest downstream perennial water not adversely affected by the discharge, provided the magnitude of these parameters will not cause toxicity in the synthetic dilution water.

iv. Samples and Composites

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

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

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

d. The permittee must collect the composite samples so that the maximum holding time for any effluent sample shall not exceed 72 hours. The permittee must have initiated the toxicity test within 36 hours after the collection of the last portion of the first composite sample. Samples shall be chilled to between 0 and 6 degrees Centigrade during collection, shipping, and/or storage.

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

f. MULTIPLE OUTFALLS: If the provisions of this section are applicable to multiple outfalls, the permittee shall combine the composite effluent samples in proportion to the average flow from the outfalls listed in Item A.i. above for the day the sample was collected. The permittee shall perform the toxicity test on the flow-weighted composite of the outfall samples.

g. If chlorination is part of the treatment process, the permittee shall not allow the sample to be dechlorinated at the laboratory. At the time of sample collection the permittee shall measure the TRC of the effluent. The measured concentration of TRC for each sample shall be included in the lab report submitted by the permittee.

D. REPORTING

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

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

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

a. Pimephales promelas (Fathead minnow)

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

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

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

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

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

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

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

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

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

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

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

b. Ceriodaphnia dubia

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

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

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

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

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

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

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

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

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

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

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

E. TOXICITY REDUCTION EVALUATIONS (TREs)

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

i. Within ninety (90) days of confirming toxicity, as outlined above, the permittee shall submit a Toxicity Reduction Evaluation (TRE) Action Plan and Schedule for conducting a TRE. The TRE Action Plan shall specify the approach and methodology to be used in performing the TRE. A Toxicity Reduction Evaluation is an investigation

intended to determine those actions necessary to achieve compliance with water quality-based effluent limits by reducing an effluent's toxicity to an acceptable level. A TRE is defined as a step-wise process which combines toxicity testing and analyses of the physical and chemical characteristics of a toxic effluent to identify the constituents causing effluent toxicity and/or treatment methods which will reduce the effluent toxicity. The goal of the TRE is to maximally reduce the toxic effects of effluent at the critical dilution and includes the following:

a. Specific Activities. The plan shall detail the specific approach the permittee intends to utilize in conducting the TRE. The approach may include toxicity characterizations, identifications and confirmation activities, source evaluation, treatability studies, or alternative approaches. When the permittee conducts Toxicity Characterization Procedures the permittee shall perform multiple characterizations and follow the procedures specified in the documents 'Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures' (EPA-600/6-91/003) and 'Toxicity Identification Evaluation: Characterization of Chronically Toxic Effluents, Phase I' (EPA-600/6-91/005F), or alternate procedures. When the permittee conducts Toxicity Identification Evaluations and Confirmations, the permittee shall perform multiple identifications and follow the methods specified in the documents 'Methods for Aquatic Toxicity Identification Evaluations, Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity' (EPA/600/R-92/080) and 'Methods for Aquatic Toxicity Identification Evaluations, Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity' (EPA/600/R-92/081), as appropriate.

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

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

b. Sampling Plan (e.g., locations, methods, holding times, chain of custody, preservation, etc.). The effluent sample volume collected for all tests shall be adequate to perform the toxicity test, toxicity characterization, identification and confirmation procedures, and conduct chemical specific analyses when a probable toxicant has been identified;

c. Where the permittee has identified or suspects specific pollutant(s) and/or source(s) of effluent toxicity, the permittee shall conduct, concurrent with toxicity testing, chemical specific analyses for the identified and/or suspected pollutant(s) and/or source(s) of effluent toxicity. Where lethality was demonstrated within 48 hours of test initiation, each composite sample shall be analyzed independently.

Otherwise the permittee may substitute a composite sample, comprised of equal portions of the individual composite samples, for the chemical specific analysis;

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

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

ii. The permittee shall initiate the TRE Action Plan within thirty (30) days of plan and schedule submittal. The permittee shall assume all risks for failure to achieve the required toxicity reduction.

iii. The permittee shall submit a quarterly TRE Activities Report, with the Discharge Monitoring Report in the months of January, April, July and October, containing information on toxicity reduction evaluation activities including:

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

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

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

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

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

F. MONITORING FREQUENCY REDUCTION

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

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

iii. SUB-LETHAL OR SURVIVAL FAILURES - If any test fails the lethal or sub-lethal endpoint at any time during the life of this permit, three consecutive monthly retests are required and the monitoring frequency for the affected test species may be increased to once per quarter until the permit is re-issued. Monthly retesting is not required if the permittee is performing a TRE.

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

18. The permittee must modify this permit should it become necessary to use disinfection.

19. In accordance with 40 C.F.R. § 133.103(c), the Division is authorized to adjust the minimum levels of effluent quality set forth in §133.105 (b)(1), (b)(2), and (b)(3) for treatment works subject to this part, to conform to the SS concentrations achievable with waste stabilization ponds, provided that: (1) Waste stabilization ponds are the principal process used for secondary treatment; and (2) operation and maintenance data indicate that the SS values specified in §133.105 (b)(1), (b)(2), and (b)(3) cannot be achieved. The term "SS concentrations achievable with waste stabilization ponds" means a SS value, determined by the Regional Administrator, or, if appropriate, State Director subject to EPA approval, which is equal to the effluent concentration achieved 90 percent of the time within a State or appropriate contiguous geographical area by waste stabilization ponds that are achieving the levels of effluent quality for BOD_5 specified in §133.105(a)(1).

20. In accordance with 40 C.F.R. § 133.101(g), treatment works shall be eligible for consideration for effluent limitations described for treatment equivalent to secondary treatment (§133.105), if:

    (1) The $BOD_5$and SS effluent concentrations consistently achievable through proper operation and maintenance (§133.101(f)) of the treatment works exceed the minimum level of the effluent quality set forth in §§133.102(a) and 133.102(b),
    (2) A trickling filter or waste stabilization pond is used as the principal process, and
    (3) The treatment works provide significant biological treatment of municipal wastewater.

21. Pursuant to 40 C.F.R. § 133.101(f), effluent concentrations consistently achievable through proper operation and maintenance means: (1) For a given pollutant parameter, the 95th percentile value for the 30-day average effluent quality achieved by a treatment works in a period of at least two years, excluding values attributable to upsets, bypasses, operational errors, or other unusual conditions, and (2) a 7-day average value equal to 1.5 times the value derived under paragraph (f)(1) of this section.

22. The permittee may submit documentation in accordance with Condition Nos. 19, 20, and 21 of this section requesting adjustment of the TSS limitations contained in the permit. This request must also demonstrate compliance with Part III, Section B, Condition No. 1. Any change to the TSS limitations will require a major permit modification.

PART III
STANDARD CONDITIONS

SECTION A – GENERAL CONDITIONS

1. **Duty to Comply**

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

2. **Penalties for Violations of Permit Conditions**

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

3. **Permit Actions**

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

A. Violation of any terms or conditions of this permit.
B. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts.
C. A change in any conditions that requires either a temporary or permanent reduction or elimination of the authorized discharge.
D. A determination that the permitted activity endangers human health or the environment and can only be regulated to acceptable levels by permit modification or termination.
E. Failure of the permittee to comply with the provisions of APC&EC Rule 9 (Permit fees) as required by Part III.A.11 herein.

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

4. **Toxic Pollutants**

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

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

5. **Civil and Criminal Liability**

Except as provided in permit conditions for "Bypass of Treatment Facilities" (Part III.B.4), and "Upset" (Part III.B.5), nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance. Any false or materially misleading representation or concealment of information required to be reported by the provisions of this permit or applicable state and federal statues or regulations which defeats the regulatory purposes of the permit may subject the permittee to criminal enforcement pursuant to the Arkansas Water and Air Pollution Control Act (Ark. Code Ann. § 8-4-101 et seq.).

6. **Oil and Hazardous Substance Liability**

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

7. **State Laws**

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

8. **Property Rights**

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

9. **Severability**

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

10. **Applicable Federal, State or Local Requirements**

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

11. **Permit Fees**

The permittee shall comply with all applicable permit fee requirements (i.e., including annual permit fees following the initial permit fee that will be invoiced every year the permit is active) for wastewater discharge permits as described in APC&EC Rule 9 (Rule for the Fee System for Environmental Permits). Failure to promptly remit all required fees shall be grounds for the Director to initiate action to terminate this permit under the provisions of 40 C.F.R. §§ 122.64 and 124.5(d), as adopted in APC&EC Rule 6 and the provisions of APC&EC Rule 8.

SECTION B – OPERATION AND MAINTENANCE OF POLLUTION CONTROLS

1. **Proper Operation and Maintenance**

A. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

B. The permittee shall provide an adequate operating staff which is duly qualified to carryout operation, maintenance, and testing functions required to ensure compliance with the conditions of this permit.

2. **Need to Halt or Reduce not a Defense**

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. Upon reduction, loss, or failure of the treatment facility, the permittee shall, to the extent necessary to maintain compliance with its permit, control production or discharges or both until the facility is restored or an alternative method of treatment is provided.

This requirement applies, for example, when the primary source of power for the treatment facility is reduced, is lost, or alternate power supply fails.

3. **Duty to Mitigate**

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

4. **Bypass of Treatment Facilities**

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

A. Bypass not exceeding limitation

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

B. Notice

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

C. Prohibition of bypass

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

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

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

5. **Upset Conditions**

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

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

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

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

6. **Removed Substances**

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

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

7. **Power Failure**

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

SECTION C – MONITORING AND RECORDS

1. **Representative Sampling**

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge during the entire monitoring period. All samples shall be taken at the monitoring points specified in this permit and, unless otherwise specified, before the effluent joins or is diluted by any other waste stream, body of water, or substance.

Monitoring points shall not be changed without notification to and the approval of the Director. Intermittent discharge shall be monitored.

2. **Flow Measurement**

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

Calculated Flow Measurement

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

3. **Monitoring Procedures**

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

4. **Penalties for Tampering**

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

5. **Reporting of Monitoring Results**

40 C.F.R. § 127.11(a)(1) and 40 C.F.R. § 127.16(a) require that monitoring reports must be reported on a Discharge Monitoring Reports (DMR) and filed electronically. Signatory Authorities must initially request access for a NetDMR account. Once a NetDMR account is established, access to electronic filing should use the following link https://cdx.epa.gov. Permittees who are unable to file electronically may request a waiver from the Director in

accordance with 40 C.F.R. § 127.15. Monitoring results obtained during the previous monitoring period shall be summarized and reported on a DMR dated and submitted no later than the 25th day of the month, following the completed reporting period beginning on the effective date of the permit.

6. **Additional Monitoring by the Permittee**

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

7. **Retention of Records**

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

8. **Record Contents**

Records and monitoring information shall include:

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

9. **Inspection and Entry**

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

A. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit.
B. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit.
C. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit.
D. Sample, inspect, or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.

SECTION D – REPORTING REQUIREMENTS

1. **Planned Changes**

The Permittee shall give notice to the Director as soon as possible but no later than 180 days prior to any planned physical alterations or additions to the permitted facility [40 C.F.R. § 122.41(l)]. Notice is required only when:

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

2. **Anticipated Noncompliance**

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

3. **Transfers**

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

4. **Monitoring Reports**

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

5. **Compliance Schedule**

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

6. **Twenty-four Hour Report**

Please be aware that the notifications can be sent by email to water-enforcement-report@adeq.state.ar.us or at 501-682-0624 for immediate reporting:

A. The permittee shall report any noncompliance which may endanger health or the environment within 24 hours from the time the permittee becomes aware of the

circumstances to the Enforcement Branch of the Office of Water Quality of DEQ. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain the following information:

1. A description of the noncompliance and its cause.
2. The period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue.
3. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

B. The following must be reported within 24 hours:

1. Any unanticipated bypass which exceeds any effluent limitation in the permit.
2. Any upset which exceeds any effluent limitation in the permit.
3. Violation of a maximum daily discharge limitation for any of the pollutants listed by the Director in Part I of the permit.

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

7. **Other Noncompliance**

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

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

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

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

B. That any activity has occurred or will occur which would result in any discharge on a non-routine or infrequent basis of a toxic pollutant including those listed in 40 C.F.R. § 401.15 which is not limited in the permit, if that discharge will exceed the highest of the "notification levels" described in 40 C.F.R. § 122.42(a)(2).

9. **Duty to Provide Information**

The permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and

reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit. Information shall be submitted in the form, manner and time frame requested by the Director.

10. **Duty to Reapply**

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

11. **Signatory Requirements**

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

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

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

   (a) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation.
   (b) The manager of one or more manufacturing, production, or operation facilities, provided: the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

2. For a partnership or sole proprietorship: by a general partner or proprietor, respectively.

3. For a municipality, State, Federal, or other public agency, by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes:

   (a) The chief executive officer of the agency.
   (b) A senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.

B. All **reports** required by the permit and **other information** requested by the Director shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:

1. The authorization is made in writing by a person described above.
2. The authorization specified either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, or position of equivalent responsibility. (A duly authorized representative may thus be either a named individual or any individual occupying a named position).
3. The written authorization is submitted to the Director.

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

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

12. **Availability of Reports**

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

13. **Penalties for Falsification of Reports**

The Arkansas Air and Water Pollution Control Act provides that any person who knowingly makes any false statement, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained under this permit shall be subject to civil penalties specified in Part III.A.2 and/or criminal penalties under the authority of the Arkansas Water and Air Pollution Control Act (Ark. Code Ann. § 8-4-101 et seq.).

14. **Other Information**

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

PART IV
DEFINITIONS

All definitions contained in Section 502 of the Clean Water Act and 40 C.F.R. § 122.2 shall apply to this permit and are incorporated herein by reference. Additional definitions of words or phrases used in this permit are as follows:

1. **"7-Day Average"** also known as "average weekly," means the highest allowable average of "daily discharges" over a calendar week, calculated as the sum of all "daily discharges" measured during a calendar week divided by the number of "daily discharges" measured during that week. The 7-Day Average for Fecal Coliform Bacteria (FCB) or E-Coli is the geometric mean of the "daily discharges" of all effluent samples collected during a calendar week in colonies per 100 ml.
2. **"Act"** means the Clean Water Act, Public Law 95-217 (33.U.S.C. 1251 et seq.) as amended.
3. **"Administrator"** means the Administrator of the U.S. Environmental Protection Agency.
4. **"APC&EC"** means the Arkansas Pollution Control and Ecology Commission.
5. **"Applicable effluent standards and limitations"** means all State and Federal effluent standards and limitations to which a discharge is subject under the Act, including, but not limited to, effluent limitations, standards of performance, toxic effluent standards and prohibitions, and pretreatment standards.
6. **"Applicable water quality standards"** means all water quality standards to which a discharge is subject under the federal Clean Water Act and which has been (a) approved or permitted to remain in effect by the Administrator following submission to the Administrator pursuant to Section 303(a) of the Act, or (b) promulgated by the Director pursuant to Section 303(b) or 303(c) of the Act, and standards promulgated under (APC&EC) Rule 2, as amended.
7. **"Best Management Practices (BMPs)"** are activities, practices, maintenance procedures, and other management practices designed to prevent or reduce the pollution of waters of the State. BMPs also include treatment technologies, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw sewage. BMPs may include structural devices or nonstructural practices.
8. **"Bypass"** means the intentional diversion of waste streams from any portion of a treatment facility, as defined at 40 C.F.R. § 122.41(m)(1)(i).
9. **"Composite sample"** is a mixture of grab samples collected at the same sampling point at different times, formed either by continuous sampling or by mixing a minimum of 4 effluent portions collected at equal time intervals (but not closer than one hour apart) during operational hours, within the 24-hour period, and combined proportional to flow or a sample collected at more frequent intervals proportional to flow over the 24-hour period.
10. **"Daily Discharge"** means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling.
    A. **Mass Calculations:** For pollutants with limitations expressed in terms of mass, the "daily discharge" is calculated as the total mass of pollutant discharged over the sampling day.
    B. **Concentration Calculations:** For pollutants with limitations expressed in other units of measurement, the "daily discharge" is calculated as the average measurement of the pollutant over the day.
11. **"Daily Maximum"** discharge limitation means the highest allowable "daily discharge" during the calendar month.

12. **"Director"** means the Director of the Division of Environmental Quality.
13. **"Dissolved oxygen limit"** shall be defined as follows:
    A. When limited in the permit as a minimum monthly average, shall mean the lowest acceptable monthly average value, determined by averaging all samples taken during the calendar month.
    B. When limited in the permit as an instantaneous minimum value, shall mean that no value measured during the reporting period may fall below the stated value.
14. **"Division"** means the Division of Environmental Quality (**DEQ**).
15. **"*E. coli*"** a sample consists of one effluent grab portion collected during a 24-hour period at peak loads. For *E. coli*, report the Daily Maximum as the highest "daily discharge" during the calendar month and the Monthly Average as the geometric mean of all "daily discharges" within a calendar month, in colonies per 100 ml.
16. **"Fecal Coliform Bacteria (FCB)"** a sample consists of one effluent grab portion collected during a 24-hour period at peak loads. For FCB, report the Daily Maximum as the highest "daily discharge" during the calendar month and the Monthly Average as the geometric mean of all "daily discharges" within a calendar month, in colonies per 100 ml.
17. **"Grab sample"** means an individual sample collected in less than 15 minutes in conjunction with an instantaneous flow measurement.
18. **"Industrial User"** means a nondomestic discharger, as identified in 40 C.F.R. Part 403, introducing pollutants to a POTW.
19. **"Instantaneous flow measurement"** means the flow measured during the minimum time required for the flow-measuring device or method to produce a result in that instance. To the extent practical, instantaneous flow measurements coincide with the collection of any grab samples required for the same sampling period so that together the samples and flow are representative of the discharge during that sampling period.
20. **"Instantaneous Maximum"** when limited in the permit as an instantaneous maximum value, shall mean that no value measured during the reporting period may fall above the stated value.
21. **"Instantaneous Minimum"** an instantaneous minimum value, shall mean that no value measured during the reporting period may fall below the stated value.
22. **"Monitoring and Reporting"**
    When a permit becomes effective, monitoring requirements are of the immediate period of the permit effective date. Where the monitoring requirement for an effluent characteristic is monthly or more frequently, the Discharge Monitoring Report (DMR) shall be submitted by the 25th of the month following the sampling. Where the monitoring requirement for an effluent characteristic is Quarterly, Semi-Annual, Annual, or Yearly, the DMR shall be submitted by the 25th of the month following the monitoring period end date.
    A. **MONTHLY:**
       is defined as a calendar month or any portion of a calendar month for monitoring requirement frequency of once/month or more frequently.
    B. **BI-MONTHLY:**
       is defined as two (2) calendar months or any portion of 2 calendar months for monitoring requirement frequency of once/2 months or more frequently.
    C. **QUARTERLY:**
       1. is defined as a **fixed calendar quarter** or any part of the fixed calendar quarter for a non-seasonal effluent characteristic with a measurement frequency of once/quarter.

Fixed calendar quarters are: January through March, April through June, July through September, and October through December.

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

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

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

23. **"Monthly Average"** means the highest allowable average of "daily discharges" over a calendar month, calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month. For Fecal Coliform Bacteria (FCB) or *E. coli*, report the Monthly Average as the geometric mean of all "daily discharges" within a calendar month.
24. **"National Pollutant Discharge Elimination System (NPDES)"** means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements under Sections 307, 402, 318, and 405 of the Clean Water Act.
25. **"POTW"** means Publicly Owned Treatment Works;
26. **"Reduction of $CBOD_5$/BOD_5 and TSS in mg/l Formula"**
[(Influent – Effluent) / Influent] × 100
27. **"Severe property damage"** means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in products.
28. **"Sewage sludge"** means the solids, residues, and precipitate separated from or created in sewage by the unit processes at a POTW. Sewage as used in this definition means any wastes, including wastes from humans, households, commercial establishments, industries, and stormwater runoff that are discharged to or otherwise enter a POTW.
29. **"Treatment works"** means any devices and systems used in storage, treatment, recycling, and reclamation of municipal sewage and industrial wastes, of a liquid nature to implement section 201 of the Act, or necessary to recycle reuse water at the most economic cost over the estimated life of the works, including intercepting sewers, sewage collection systems, pumping, power and other equipment, and alterations thereof; elements essential to provide a reliable recycled supply such as standby treatment units and clear well facilities, and any works, including site acquisition of the land that will be an integral part of the treatment process or is used for ultimate disposal of residues resulting from such treatment.
30. **Units of Measure:**
"MGD" shall mean million gallons per day.

"mg/l" shall mean milligrams per liter or parts per million (ppm).
"µg/l" shall mean micrograms per liter or parts per billion (ppb).
"cfs" shall mean cubic feet per second.
"ppm" shall mean parts per million.
"s.u." shall mean standard units.

31. **"Upset"** means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. Any upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, lack of preventive maintenance, or careless of improper operations.
32. **"Visible sheen"** means the presence of a film or sheen upon or a discoloration of the surface of the discharge. A sheen can also be from a thin glistening layer of oil on the surface of the discharge.
33. **"Weekday"** means Monday – Friday.

Draft

Fact Sheet

This Fact Sheet is for information and justification of the permit requirements only. Please note that it is not enforceable. This draft permitting decision is for the renewal of discharge Permit Number AR0033723 with Arkansas Department of Energy and Environment – Division of Environmental Quality (DEQ) Facility Identification Number (AFIN) 70-00341 to discharge to Waters of the State.

1. PERMITTING AUTHORITY

The issuing office is:

Arkansas Department of Energy and Environment
Division of Environmental Quality
5301 Northshore Drive
North Little Rock, Arkansas 72118-5317

2. APPLICANT

The applicant's mailing address is:

City of El Dorado - South Plant
P.O. Box 1587
El Dorado, AR 71731

The facility address is:

City of El Dorado - South Plant
325 Quail Crossing
El Dorado, AR 71730

3. PREPARED BY

The permit was prepared by:

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4. PERMIT ACTIVITY

Previous Permit Effective Date:	January 1, 2015
Previous Permit Modification Dates:	November 1, 2015 (major modification) December 1, 2016 (major modification) October 1, 2017 (minor modification)
Previous Permit Expiration Date:	December 31, 2019

The permittee submitted a permit renewal application on June 27, 2019, with all additional information submitted by October 4, 2019. It is proposed that the current discharge permit be reissued for a 5-year term in accordance with regulations promulgated at 40 C.F.R. § 122.46(a).

DOCUMENT ABBREVIATIONS

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

APC&EC - Arkansas Pollution Control and Ecology Commission
BAT - best available technology economically achievable
BCT - best conventional pollutant control technology
BMP - best management practice
BOD_5 - five-day biochemical oxygen demand
BPJ - best professional judgment
BPT - best practicable control technology currently available
$CBOD_5$ - carbonaceous biochemical oxygen demand
CD - critical dilution
CFR - Code of Federal Regulations
cfs - cubic feet per second
COD - chemical oxygen demand
COE - United States Corp of Engineers
CPP - continuing planning process
CWA - Clean Water Act
DMR - discharge monitoring report
DO - dissolved oxygen
ELG - effluent limitation guidelines
EPA - United States Environmental Protection Agency
ESA - Endangered Species Act
FCB - fecal coliform bacteria
gpm - gallons per minute
MGD - million gallons per day
MQL - minimum quantification level
NAICS - North American Industry Classification System
NH_3-N - ammonia nitrogen
$NO_3 + NO_2$-N - nitrate + nitrite nitrogen
NPDES - National Pollutant Discharge Elimination System
O&G - oil and grease
Rule 2 - APC&EC Rule 2
Rule 6 - APC&EC Rule 6
Rule 8 - APC&EC Rule 8
Rule 9 - APC&EC Rule 9
RP - reasonable potential
SIC - standard industrial classification
SSO - sanitary sewer overflow
TDS - total dissolved solids
TMDL - total maximum daily load

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

Compliance and Enforcement History:

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

https://www.adeq.state.ar.us/downloads/WebDatabases/PermitsOnline/NPDES/PermitInformation/AR0033723_Compliance%20Review_20190930.txt

5. SIGNIFICANT CHANGES FROM THE PREVIOUSLY ISSUED PERMIT

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

1. Part III.C.5 of the permit now requires that DMRs be submitted electronically via NetDMR.
2. The FCB limits at Outfall 010S for the month of April have been corrected. See Item No. 12 of this Fact Sheet for additional information.
3. The requirement to monitor the $CBOD_5$ and TSS in the influent has been removed from Part II, Condition No. 2 of the permit. It is important to note that the permittee is required to conduct this testing as part of the pretreatment program requirements.
4. The $CBOD_5$ loading limits at Outfall 010S have been reduced at the request of the permittee to allow for reallocation to Great Lakes Chemical Corporation's Central Plant (AR0001171).
5. Condition No. 23 of Part II was removed from the permit. Sludge disposal is addressed in Part III.B.6 of the permit.
6. Part IB has been updated. A Schedule of Compliance is no longer required for Metals and WET limit compliance at Outfall 001.
7. The SSO language has been revised.
8. Annual monitoring and reporting requirements for Total Recoverable Mercury at Outfall 001 have been added to the permit to comply with the TMDL implementation plan.
9. The concentration limit for Total Recoverable Mercury has been revised to 0.19 µg/l. See Item No. 12.A of this Fact Sheet for additional informaion.
10. The Acute WET Testing conditions at Outfall 001 have been removed from the permit at the direction of EPA Region 6.

11. The Chronic WET Testing condition at Outfall 001 limiting testing to discharge durations greater than 5 days has been removed from the permit at the direction of EPA Region 6.

6. **RECEIVING STREAM SEGMENT AND DISCHARGE LOCATION**

Outfall 001

The outfall is located at the following coordinates based on the permit application and confirmed with Google Earth using WGS84:

Latitude: 33° 10’ 20.41”; Longitude: 92° 39’ 48.8”

The receiving waters named:

Bayou de Loutre, thence to the Ouachita River in Segment 2D of the Ouachita River Basin. The receiving stream with USGS Hydrologic Unit Code (H.U.C) of 08040202 and reach #008 is a Water of the State classified for secondary contact recreation, raw water source for domestic (public and private), industrial, and agricultural water supplies, propagation of desirable species of fish and other aquatic life, and other compatible uses.

Outfall 010S

The outfall at the Ouachita River is located at the following coordinates based on the permit application using NAD83:

Latitude: 33° 17’ 30” Longitude: 92° 28’ 12”

The monitoring location for Outfall 010S is located at the following coordinates:

Latitude: 33° 10’ 24”; Longitude: 92° 39’ 42”

The receiving waters named:

via the joint pipeline to the Ouachita River, approximately 1.5 miles downstream of the H.K. Thatcher Lock and Dam in Segment 2D of the Ouachita River Basin. The receiving stream with Assessment Unit AR_08040201_002 is a Water of the State classified for primary and secondary contact recreation, raw water source for domestic (public and private), industrial, and agricultural water supplies, propagation of desirable species of fish and other aquatic life, and other compatible uses.

7. 303(d) LIST, TOTAL MAXIMUM DAILY LOADS, ENDANGERED SPECIES, AND ANTI-DEGRADATION CONSIDERATIONS

A. 303(d) List

Bayou de Loutre is on the 2018 303(d) list for Lead, Zinc, Selenium, pH, and turbidity due to an Industrial Point Source. The permit already contains limits on Selenium due to the effluent showing reasonable potential for water quality exceedances during a previous permit renewal. The permit also contains limits on pH and TSS which are protective of the designated uses of the receiving stream. Therefore, no further consideration of these parameters in relation to the 2018 303(d) list is required at this time.

Requirements for Lead and Zinc will not be included in the permit at this time for Outfall 001. Information concerning these parameters may be obtained from Outfall 010S if a TMDL is developed for Bayou de Loutre as the effluent from Outfall 010S is identical to that of Outfall 001.

Applicable Total Maximum Daily Loads (TMDLs) *TMDLs for Segments Listed for Mercury in Fish Tissue for the Ouachita River Basin and Bayou Bartholomew, Arkansas and Louisiana to Columbia* was finalized December 18, 2002. Permit limits for Total Recoverable Mercury are included in NPDES Permit No. AR0050296, the permit for the joint pipeline. Those limits were calculated in accordance with the WLA allocation and were upheld through appeal to the Arkansas Supreme Court. A 7-day average concentration limit has been included at Outfall 010SThe implementation of the TMDL for Mercury at this outfall was one of the items appealed in 2007. The implementation by the DEQ was upheld by the Arkansas Supreme Court.

http://www.adeq.state.ar.us/downloads/WebDatabases/PermitsOnline/NPDES/PermitInformation/AR0033936_Arkansas%20Supreme%20Court%20Rule%20Docket%2009-1093_20101007.pdf

This facility is assigned a wasteload allocation in the TMDL referenced in the preceding paragraph. Consistent with the TMDL, the permit includes once per year monitoring and reporting for Mercury. EPA Method 1631E is now available which has a detection limit of 0.005 µg/L. Effluent sampling for Mercury should follow procedures as outlined in EPA Method 1631E. The data will be reviewed at next permit renewal to determine if compliance with the TMDL is being demonstrated (effluent values not exceeding 0.012 ug/L). If the data shows that the facility is discharging greater than 0.012 ug/L, the facility will need to choose another TMDL implementation requirement at next renewal.

B. Endangered Species

No comments on the application were received from the USF&WS. The draft permit and Fact Sheet will be sent to the USF&WS for their review.

C. **Anti-Degradation**

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

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

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

A. Design Flow: 7 MGD (Outfall 001)

Permit Flow Limit: 7 MGD (Outfall 010S)

B. Type of Treatment: two aerated lagoons and two facultative lagoons in series, dissolved air floatation (DAF) (as needed), and chlorine disinfection (as needed)

C. Discharge Description: treated municipal wastewater

D. Facility Status: This facility is classified as a major municipal since the design flow of the facility listed above is greater than 1.0 MGD.

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

9. **ACTIVITY**

Under the Standard Industrial Classification (SIC) code of 4952 or North American Industry Classification System (NAICS) code of 221320, the applicant's activities are the operation of a sewage treatment plant.

10. **INDUSTRIAL WASTEWATER CONTRIBUTIONS**

This facility receives process wastewater from significant industrial users, as defined in 40 C.F.R. § 403.3(v). Based on the applicant's effluent compliance history and the type of industrial contributions, standard Pretreatment Program implementation conditions are deemed appropriate at this time.

11. **SEWAGE SLUDGE PRACTICES**

Sludge will be hauled off site as necessary and disposed of in accordance with the applicable rules and regulations.

12. **DEVELOPMENT AND BASIS FOR PERMIT CONDITIONS**

The Division of Environmental Quality has determined to issue a draft permit for the discharge described in the application. Permit requirements are based on federal regulations (40 C.F.R. Parts 122, 124, and Subchapter N), the National Pretreatment Regulation in 40 C.F.R. Part 403 and regulations promulgated pursuant to the Arkansas Water and Air Pollution Control Act (Ark. Code Ann. 8-4-101 et seq.). All of the information contained in the application, including all of the submitted effluent testing data, was reviewed to determine the need for effluent limits and other permit requirements.

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

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

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

Parameter		Water Quality-Based		Technology-Based/BPJ		Previous Permit		Draft Permit	
		Monthly Avg. mg/l	7-day Avg. mg/l	Monthly Avg. mg/l	7-day Avg. mg/l	Monthly Avg. mg/l	7-day Avg. mg/l	Monthly Avg. mg/l	7-day Avg. mg/l
OUTFALL 001									
$CBOD_5$									
(May – October)		10	15	25	40	10	15	10	15
(November - April)		25	37.5	25	40	25	37.5	25	37.5
TSS									
(May – October)		N/A	N/A	15	22.5	15	22.5	15	22.5
(November - April)		N/A	N/A	30	45	30	45	30	45
NH_3-N									
NH_3-N Limits for Short Term Discharges (Discharges ≤ 5 days)									
April	Temp. ≤ 18.0°C	10.2	10.2	N/A	N/A	10.2	10.2	10.2	10.2
	18.1°C ≤ Temp. ≤ 20.0°C	10.2	10.2	N/A	N/A	10.2	10.2	10.2	10.2
	20.1°C ≤ Temp. ≤ 22.0°C	9.73	9.73	N/A	N/A	9.73	9.73	9.73	9.73

Parameter		Water Quality-Based		Technology-Based/BPJ		Previous Permit		Draft Permit	
		Monthly Avg. mg/l	7-day Avg. mg/l	Monthly Avg. mg/l	7-day Avg. mg/l	Monthly Avg. mg/l	7-day Avg. mg/l	Monthly Avg. mg/l	7-day Avg. mg/l
	22.1°C ≤ Temp. ≤ 24.0°C	8.55	8.55	N/A	N/A	8.55	8.55	8.55	8.55
	24.1°C ≤ Temp. ≤ 26.0°C	7.50	7.50	N/A	N/A	7.50	7.50	7.50	7.50
	26.1°C ≤ Temp. ≤ 28.0°C	6.60	6.60	N/A	N/A	6.60	6.60	6.60	6.60
	28.1°C ≥ Temp.	5.80	5.80	N/A	N/A	5.80	5.80	5.80	5.80
May	Temp. ≤ 18.0°C	7.5	7.5	N/A	N/A	7.5	7.5	7.5	7.5
	18.1°C ≤ Temp. ≤ 20.0°C	7.5	7.5	N/A	N/A	7.5	7.5	7.5	7.5
	20.1°C ≤ Temp. ≤ 22.0°C	7.5	7.5	N/A	N/A	7.5	7.5	7.5	7.5
	22.1°C ≤ Temp. ≤ 24.0°C	7.5	7.5	N/A	N/A	7.5	7.5	7.5	7.5
	24.1°C ≤ Temp. ≤ 26.0°C	7.5	7.5	N/A	N/A	7.5	7.5	7.5	7.5
	26.1°C ≤ Temp. ≤ 28.0°C	7.08	7.08	N/A	N/A	7.08	7.08	7.08	7.08
	28.1°C ≥ Temp.	6.23	6.23	N/A	N/A	6.23	6.23	6.23	6.23
(June – October)		6.1	6.1	N/A	N/A	6.1	6.1	6.1	6.1
(November – March)		17.0	17.0	N/A	N/A	17.0	17.0	17.0	17.0
NH_3-N Limits for Long Term Discharges (Discharges > 5 days)									
April	Temp. ≤ 18.0°C	5.03	12.58	N/A	N/A	5.03	12.58	5.03	12.58
	18.1°C ≤ Temp. ≤ 20.0°C	4.42	11.05	N/A	N/A	4.42	11.05	4.42	11.05
	20.1°C ≤ Temp. ≤ 22.0°C	3.89	9.73	N/A	N/A	3.89	9.73	3.89	9.73
	22.1°C ≤ Temp. ≤ 24.0°C	3.42	8.55	N/A	N/A	3.42	8.55	3.42	8.55
	24.1°C ≤ Temp. ≤ 26.0°C	3.00	7.50	N/A	N/A	3.00	7.50	3.00	7.50
	26.1°C ≤ Temp. ≤ 28.0°C	2.64	6.60	N/A	N/A	2.64	6.60	2.64	6.60
	28.1°C ≥ Temp.	2.32	5.8	N/A	N/A	2.32	5.8	2.32	5.8
May	Temp. ≤ 18.0°C	5.00	7.50	N/A	N/A	5.00	7.50	5.00	7.50

Parameter		Water Quality-Based		Technology-Based/BPJ		Previous Permit		Draft Permit	
		Monthly Avg. mg/l	7-day Avg. mg/l	Monthly Avg. mg/l	7-day Avg. mg/l	Monthly Avg. mg/l	7-day Avg. mg/l	Monthly Avg. mg/l	7-day Avg. mg/l
	18.1°C ≤ Temp. ≤ 20.0°C	4.74	7.50	N/A	N/A	4.74	7.50	4.74	7.50
	20.1°C ≤ Temp. ≤ 22.0°C	4.17	7.50	N/A	N/A	4.17	7.50	4.17	7.50
	22.1°C ≤ Temp. ≤ 24.0°C	3.66	7.50	N/A	N/A	3.66	7.50	3.66	7.50
	24.1°C ≤ Temp. ≤ 26.0°C	3.22	7.50	N/A	N/A	3.22	7.50	3.22	7.50
	26.1°C ≤ Temp. ≤ 28.0°C	2.83	7.08	N/A	N/A	2.83	7.08	2.83	7.08
	28.1°C ≥ Temp.	2.49	6.23	N/A	N/A	2.49	6.23	2.49	6.23
(June – October)		2.4	6.1	N/A	N/A	2.4	6.1	2.4	6.1
(November – March)		6.8	17.0	N/A	N/A	6.8	17.0	6.8	17.0
DO									
(May – October)		3.0 (Monthly Avg. Min.)		N/A		3.0 (Monthly Avg. Min.)		3.0 (Monthly Avg. Min.)	
(November - April)		5.0 (Monthly Avg. Min.)		N/A		5.0 (Monthly Avg. Min.)		5.0 (Monthly Avg. Min.)	
FCB (col/100 ml)									
(April – September)		200	400	N/A	N/A	200	400	200	400
(October – March)		1000	2000	N/A	N/A	1000	2000	1000	2000
Effluent Temperature									
(April – May)		N/A	N/A	N/A	Report	N/A	Report	N/A	Report
$NO_3 + NO_2$ - N		N/A	N/A	Report	Report	Report	Report	Report	Report
Copper, Total Recoverable		12.20 µg/l	24.48 µg/l	N/A	N/A	12.20 µg/l	24.48 µg/l	12.20 µg/l	24.48 µg/l
Selenium, Total Recoverable		5.58 µg/l	11.20 µg/l	N/A	N/A	5.58 µg/l	11.20 µg/l	5.58 µg/l	11.20 µg/l
Cyanide, Total Recoverable		5.80 µg/l	11.64 µg/l	N/A	N/A	5.80 µg/l	11.64 µg/l	5.80 µg/l	11.64 µg/l
Mercury, Total Recoverable		N/A	N/A	Report µg/l	Report µg/l	N/A	N/A	Report µg/l	Report µg/l
pH		6.0-9.0 s.u.		6.0-9.0 s.u.		6.0-9.0 s.u.		6.0-9.0 s.u.	

Parameter	Water Quality-Based		Technology-Based/BPJ		Previous Permit		Draft Permit	
	Monthly Avg. mg/l	7-day Avg. mg/l	Monthly Avg. mg/l	7-day Avg. mg/l	Monthly Avg. mg/l	7-day Avg. mg/l	Monthly Avg. mg/l	7-day Avg. mg/l
P. promelas Chronic WET Testing	N/A		Report		Report		Report	
C. dubia Chronic Lethal WET limits	not <100%		N/A		not <100%		not <100%	
C. dubia Chronic Sub-lethal WET limits	not <80%		N/A		not <80%		not <80%	
OUTFALL 010S								
Flow, MGD	Report	7	N/A	N/A	Report	7	Report	7
$CBOD_5$								
(May – October)	1119.17 lb/day, 22.5 mg/l	1678.75 lb/day, 33.8 mg/l	25 mg/l	40 mg/l	1313.6 lb/day, 22.5 mg/l	1970.4 lb/day, 33.8 mg/l	1119.17 lb/day, 22.5 mg/l	1678.75 lb/day, 33.8 mg/l
(November – April)	1323.47 lb/day, 25 mg/l	1985.15 lb/day, 39 mg/l	25 mg/l	40 mg/l	1517.9 lb/day, 25 mg/l	2276.8 lb/day, 39 mg/l	1323.47 lb/day, 25 mg/l	1985.15 lb/day, 39 mg/l
TSS	1751.4 lb/day	2627.1 lb/day	30 mg/l	45 mg/l	1751.4 lb/day	2627.1 lb/day	1751.4 lb/day, 30 mg/l	2627.1 lb/day, 45 mg/l
NH_3-N								
(May – October)	496.3 lb/day	624 lb/day	N/A	N/A	496.3 lb/day	624 lb/day	496.3 lb/day	624 lb/day
(November – April)	1605.5 lb/day	2287 lb/day	N/A	N/A	1605.5 lb/day	2287 lb/day	1605.5 lb/day	2287 lb/day
D.O.	N/A		Report, inst. min.		Report, inst. min.		Report, inst. min.	
F.C.B. (col/100 ml)								
(May – September)	200	400	N/A	N/A	200	400	200	400
(October – March)	1000	2000	N/A	N/A	1000	2000	1000	2000
(April)	1000	2000	N/A	N/A	200	400	1000	2000
Mercury, Total Recoverable	N/A	0.19 µg/l	N/A	N/A	N/A	<0.2 µg/l	N/A	0.19 µg/l
Cadmium, Total Recoverable	0.78 lb/day	1.56 lb/day	N/A	N/A	0.78 lb/day	1.56 lb/day	0.78 lb/day	1.56 lb/day
Hexavalent Chromium, Dissolved	3.37 lb/day	6.76 lb/day	N/A	N/A	3.37 lb/day	6.76 lb/day	3.37 lb/day	6.76 lb/day

Parameter	Water Quality-Based		Technology-Based/BPJ		Previous Permit		Draft Permit	
	Monthly Avg. mg/l	7-day Avg. mg/l	Monthly Avg. mg/l	7-day Avg. mg/l	Monthly Avg. mg/l	7-day Avg. mg/l	Monthly Avg. mg/l	7-day Avg. mg/l
Copper, Total Recoverable	2.88 lb/day	5.78 lb/day	N/A	N/A	2.88 lb/day	5.78 lb/day	2.88 lb/day	5.78 lb/day
Lead, Total Recoverable	1.40 lb/day	2.80 lb/day	N/A	N/A	1.40 lb/day	2.80 lb/day	1.40 lb/day	2.80 lb/day
Nickel, Total Recoverable	49.81 lb/day	99.93 lb/day	N/A	N/A	49.81 lb/day	99.93 lb/day	49.81 lb/day	99.93 lb/day
Selenium, Total Recoverable	2.30 lb/day	4.62 lb/day	N/A	N/A	2.30 lb/day	4.62 lb/day	2.30 lb/day	4.62 lb/day
Silver, Total Recoverable	0.27 lb/day	0.55 lb/day	N/A	N/A	0.27 lb/day	0.55 lb/day	0.27 lb/day	0.55 lb/day
Zinc, Total Recoverable	25.73 lb/day	51.63 lb/day	N/A	N/A	25.73 lb/day	51.63 lb/day	25.73 lb/day	51.63 lb/day
Chromium (III), Total Recoverable	138.31 lb/day	277.50 lb/day	N/A	N/A	138.31 lb/day	277.50 lb/day	138.31 lb/day	277.50 lb/day
Cyanide, Total Recoverable	2.39 lb/day	4.81 lb/day	N/A	N/A	2.39 lb/day	4.81 lb/day	2.39 lb/day	4.81 lb/day
Sulfates	N/A	N/A	Report, mg/l	Report, mg/l	Report, mg/l	Report, mg/l	Report, mg/l	Report, mg/l
Chlorides	N/A	N/A	Report, mg/l	Report, mg/l	Report, mg/l	Report, mg/l	Report, mg/l	Report, mg/l
TDS	N/A	N/A	Report, mg/l	Report, mg/l	Report, mg/l	Report, mg/l	Report, mg/l	Report, mg/l
O & G	583.8	875.7	N/A	N/A	583.8	875.7	583.8	875.7
Total Phosphorus	N/A	N/A	Report, mg/l	Report, mg/l	Report, mg/l	Report, mg/l	Report, mg/l	Report, mg/l
pH	6.0-9.0 s.u.		6.0-9.0 s.u.		6.0-9.0 s.u.		6.0-9.0 s.u.	

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

Parameter	Water Quality or Technology	Justification
OUTFALL 001		
$CBOD_5$	Water Quality	Water Quality Model dated October 15, 2013 (and reviewed May 19, 2020), CWA § 402(o), and previous permit
TSS	Technology	40 C.F.R. § 133.102(b) (November – April), 40 C.F.R. § 122.44(l), and previous permit

Parameter	Water Quality or Technology	Justification
NH_3-N	Water Quality	Rule 2.512 / Water Quality Model dated October 15, 2013 (and reviewed May 19, 2020), CWA § 402 (o), PAR for 2014 permit renewal and previous permit
DO	Water Quality	Rule 2.505, Water Quality Model dated October 15, 2013 (and reviewed May 19, 2020), CWA § 402 (o), and previous permit
FCB	Water Quality	Rule 2.507, CWA § 402 (o), and previous permit
Effluent Temperature	Technology	Determine appropriate NH3-N limit which are based on temperature tiers, PAR for 2014 permit renewal 40 C.F.R. § 122.44(l), and previous permit
$NO_3 + NO_2 – N$	Technology	CPP, 40 C.F.R. § 122.44(l), and previous permit
Copper, Total Recoverable	Water Quality	Rule 2.508, CWA § 402 (o), and previous permit
Selenium, Total Recoverable	Water Quality	Rule 2.508, CWA § 402 (o), and previous permit
Cyanide, Total Recoverable	Water Quality	Rule 2.508, CWA § 402 (o), and previous permit
Mercury, Total Recoverable	Technology	*TMDLs for Segments Listed for Mercury in Fish Tissue for the Ouachita River Basin and Bayou Bartholomew, Arkansas and Louisiana to Columbia*
pH	Water Quality	Rule 2.504, CWA § 402 (o), and previous permit
P. promelas WET Testing	Technology	Rule 2.409, 40 C.F.R. § 122.44(l), and previous permit
C. dubia Lethal WET Limit	Water Quality	Rule 2.409, CWA § 402 (o), and previous permit
C. dubia Sub-lethal WET Limit	Water Quality	Rule 2.409, CWA § 402 (o), and previous permit
OUTFALL 010S		
Flow	Water Quality	The flow cap is included in the permit because there are no concentrations for metals in the permit, Arkansas Supreme Court Rule Docket 09-1093, CWA §402(o), and previous permit
$CBOD_5$	Water Quality/ Technology	Model dated March 16, 2005 performed by permittee and approved by DEQ and EPA, 40 C.F.R.40 C.F.R. Part 133.102(a), Arkansas Supreme Court Rule Docket 09-1093, CWA §402(o), and previous permit
TSS	Technology	Arkansas Supreme Court Rule Docket 09-1093, 40 C.F.R.40 C.F.R. § 133.102(b), 40 C.F.R.40 C.F.R. 122.44(l), and previous permit

Parameter	Water Quality or Technology	Justification
NH_3-N	Water Quality	Model dated March 16, 2005, performed by permittee and approved by DEQ and EPA, Arkansas Supreme Court Rule Docket 09-1093, CWA §402(o), and previous permit
D.O.	Technology	Judgment of Office of Water Quality Staff, Arkansas Supreme Court Rule Docket 09-1093, 40 C.F.R. § 122.44(l), and previous permit
F.C.B.	Water Quality	Rule 2.507, Arkansas Supreme Court Rule Docket 09-1093, CWA §402(o), and previous permit
Mercury, Total Recoverable	Water Quality	Rule 2.508, TMDL, Arkansas Supreme Court Rule Docket 09-1093, CWA §402(o), and previous permit
Cadmium, Total Recoverable	Water Quality	Rule 2.508, Arkansas Supreme Court Rule Docket 09-1093, CWA §402(o), and previous permit
Hexavalent Chromium, Dissolved	Water Quality	Rule 2.508, Arkansas Supreme Court Rule Docket 09-1093, CWA §402(o), and previous permit
Copper, Total Recoverable	Water Quality	Rule 2.508, Arkansas Supreme Court Rule Docket 09-1093, CWA §402(o), and previous permit
Lead, Total Recoverable	Water Quality	Rule 2.508, Arkansas Supreme Court Rule Docket 09-1093, CWA §402(o), and previous permit
Nickel, Total Recoverable	Water Quality	Rule 2.508, Arkansas Supreme Court Rule Docket 09-1093, CWA §402(o), and previous permit
Selenium, Total Recoverable	Water Quality	Rule 2.508, Arkansas Supreme Court Rule Docket 09-1093, CWA §402(o), and previous permit
Silver, Total Recoverable	Water Quality	Rule 2.508, Arkansas Supreme Court Rule Docket 09-1093, CWA §402(o), and previous permit
Zinc, Total Recoverable	Water Quality	Rule 2.508, Arkansas Supreme Court Rule Docket 09-1093, CWA §402(o), and previous permit
Chromium (III), Total Recoverable	Water Quality	Rule 2.508, Arkansas Supreme Court Rule Docket 09-1093, CWA §402(o), and previous permit
Cyanide, Total Recoverable	Water Quality	Rule 2.508, Arkansas Supreme Court Rule Docket 09-1093, CWA §402(o), and previous permit
Sulfates	Technology	Judgment of Office of Water Quality Staff, Arkansas Supreme Court Rule Docket 09-1093, 40 C.F.R. § 122.44(l), and previous permit
Chlorides	Technology	Judgment of Office of Water Quality Staff, Arkansas Supreme Court Rule Docket 09-1093, 40 C.F.R. § 122.44(l), and previous permit
TDS	Technology	Judgment of Office of Water Quality Staff, Arkansas Supreme Court Rule Docket 09-1093, 40 C.F.R. § 122.44(l), and previous permit
O & G	Water Quality	Rule 2.510, Arkansas Supreme Court Rule Docket 09-1093, CWA §402(o), and previous permit

Parameter	Water Quality or Technology	Justification
Total Phosphorus	Technology	Nutrient Study Model performed by permittee and approved by DEQ and EPA, Rule 6.402, 40 C.F.R. § 122.44(l), and previous permit
pH	Water Quality	Rule 2.504, Arkansas Supreme Court Rule Docket 09-1093, CWA §402(o), and previous permit

Outfall 001

No limits at Outfall 001 are changing with this permit renewal. Monitoring and reporting requirements for Total Recoverable Mercury have been added. See Item No. 7.B of this Fact Sheet for additional information.

The receiving streams were evaluated to determine they do not lie in the Nutrient Surplus Area (NSA) or affect impaired reaches. Therefore Regulation 2.509 does not require nutrient limits at this time.

It is important to note that monitoring and reporting requirements are included at Outfall 010S which is the outfall that the permittee discharges through on a regular basis.

Part II, Condition No. 12 allows DEQ to condition the diversion of effluent from Outfall 010S to Outfall 001. Total Phosphorus monitoring at Outfall 001 may be required if warranted.

Outfall 010S

FCB

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

$CBOD_5$

The $CBOD_5$ loading limits at Outfall 010S have decreased at the request of the permittee. Outfall 010S is routed via the joint pipeline to the Ouachita River. Four other facilities also discharge to the joint pipeline, including the City of El Dorado's North Plant (AR0033936) and Great Lakes Chemical Corporation's (GLCC) Central Plant (AR0001171). Each facility discharging to the joint pipeline has been allotted a portion of the total $CBOD_5$ that may be discharged under the permit for the joint pipeline (AR0050296).

After discharges to the joint pipeline had commenced, it was discovered that GLCC did not have a large enough allocation to cover its discharges to the joint pipeline. Meanwhile,

the allocations for both of the City of El Dorado's plants were more than sufficient to cover their discharges to the joint pipeline.

GLCC submitted an application on April 23, 2014, to modify their permit to allow for reallocation of the $CBOD_5$. The letter response from DEQ dated May 5, 2014, provided that the City of El Dorado had not also requested the reallocation and therefore could not be approved at that time.

On December 20, 2019, the City of El Dorado updated their permit renewal application with a request for reallocation of the $CBOD_5$ limits at their outfalls discharging to the joint pipeline. This information was updated on March 23, 2020. The $CBOD_5$ loading rates at Outfall 010S in NPDES Permit No. AR0033723 have been updated as requested by the permittee. It is important to note that the overall $CBOD_5$ loading limits in the joint pipeline permit (AR0050296) are remaining unchanged.

The $CBOD_5$ concentration limits at Outfall 010S have not been lowered. Concentration limits are only included in this permit because the permittee is subject to of 40 C.F.R. 133 which requires that a $CBOD_5$ concentration limit be included.

Total Phosphorus

The monitoring and reporting requirements for Total Phosphorus have been continued in the permit at Outfall 010S.

The joint pipeline permit, AR0050296, contains numerical limits for Total Phosphorus which were based on an extensive modeling study for which the final report was submitted in February 2007. This study and the Total Phosphorus limits were one of the significant issues brought forth in the appeal of the modified permit issued February 28, 2007. The appealing parties stated that the proposed limits for this parameter were not protective. The AHO, the Circuit Court, and the Arkansas Supreme Court all concluded that the limits are appropriate and protective of the water quality in the Ouachita River in Arkansas and Louisiana. It is also important to note that the concentration limits for the joint pipeline are also contained in Rule 6. The permittee will be required to meet the limits contained in AR0050296 even if they are the only facility discharging through the pipeline.

Since this issue has been adjudicated and there have been no changes at the facility which would warrant a review of the modeling study, reasonable potential calculations are not appropriate.

Mercury

The permit limit in the joint pipeline permit (NPDES Permit No. AR0050296) is set at 0.19 µg/l. The mercury limit in AR0050296 was not split between the individual facilities because it is only a concentration limit and not a mass limit.

This limit was calculated using the chronic WQS of 0.12 µg/l, the effluent flow limit in AR0050296, and the 7Q10 of the Ouachita River. As confirmed in the AHO's

recommended decision (based in part on the testimony of the author of the TMDL), that limit was calculated in accordance with the requirements of the TMDL. This was upheld by the Arkansas Supreme Court.

The limit in this NPDES permit, < 0.2 µg/l, was set at that point in order to require the permittee to be at or below the limit in AR0050296. At the time the permit was drafted, the MQL for Mercury was 0.2 µg/l. The MQL changed after the permits were sent to public notice in March 2006.

The Mercury limit at Outfall 010S will be changed to 0.19 µg/l to ensure that the limit in AR0050296 will be met if this facility is the only discharger through AR0050296's outfall.

B. **Anti-backsliding**

The draft permit is consistent with the requirements to meet Anti-backsliding provisions of the Clean Water Act (CWA), Section 402(o) [40 C.F.R. § 122.44(l)]. The final effluent limitations for reissuance permits must be as stringent as those in the previous permit, unless the less stringent limitations can be justified using exceptions listed in CWA 402(o)(2), CWA 303(d)(4), or 40 C.F.R. § 122.44(l)(2)(i).

The permit meets or exceeds the requirements of the previous permit, except for FCB. The final effluent limitations for FCB in the previous permit were not consistent with current State WQS found in Chapter 5, Section 2.507 of Rule 2. The WQS have been updated since that time. This permit allows relaxation in the secondary contact season limitations. This relaxation in limitations does not constitute backsliding, based on CWA Sections 402(o) and 303(d)(4). The revised limitations continue to maintain the state anti-degradation policy by meeting the primary and secondary contact season standards of Rule 2.507, and maintaining the existing uses of the receiving stream.

C. **Limits Calculations**

1. Mass Limits:

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

Outfall 001

The calculation of the loadings (lbs per day) uses a design flow of 7 MGD and the following equation:

Mass (lbs/day) = Concentration (mg/l) × Flow (MGD) × 8.34

Outfall 010S

With the exception of $CBOD_5$, the mass limits for this permit are based on the permittee's allotment from the mass limits contained in the permit for the joint pipeline to the Ouachita River (AR0050296).

The $CBOD_5$ limits are based on the permittee's allotment and a reallocation of part of the allotment from AR0050296. A copy of the reallocation calculations may be found using the following link:

http://www.adeq.state.ar.us/downloads/WebDatabases/PermitsOnline/NPDES/PermitInformation/AR0033936_Correction%20to%20Reallocation%20Calculation_20200323.pdf

2. 7-Day Average Limits:

Outfall 001

The 7-Day Average limits for $CBOD_5$ and TSS are based on Section 5.4.2 of the Technical Support Document for Water Quality-Based Toxics Control.

7-Day Average limits = Monthly average limits X 1.5

The 7-Day Average NH_3-N limits are based on the requirements of Rule 2.512.

The 7-Day Average limits for FCB are based on Rule 2.507.

The 7-Day Average limits for Total Recoverable Copper, Total Recoverable Selenium, and Total Recoverable Cyanide were calculated in accordance with the procedures set forth in Appendix D of the CPP.

Outfall 010S

The daily maximum limits are based on the permittee's allotment from AR0050296.

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

3. Ammonia-Nitrogen (NH_3-N) at Outfall 001

Ammonia toxicity criteria varies based on the pH and the temperature of the water. During the renewal process and appeal for the previous permit, the permittee requested that the limits for NH_3-N be based on site-specific pH and temperature data.

The average pH of the effluent for the month of April and the month of May was calculated using all of the pH data from the applicable month during the term of the renewal permit issued in 2008. It is appropriate to use average pH values for the determination of NH_3-N toxicity permit limits because Rule 2.512(D) states that the pH values will be the ecoregion mean value from least-disturbed stream data. The pH

scale is logarithmic. Therefore, the average cannot be determined by adding all of the pH values together and dividing by the number of values. An average pH must be calculated using the following formula:

avg. pH = $-\log_{10}[(\Sigma C_i)/(n)]$

where:
C = the concentration of the hydronium ion (based on pH); and
n = the number of measurements.

The average pH values for the months of April and May were determined independently of the other month. The average pH for the month of April was determined to be 6.8 s.u while it was 6.4 s.u. for the month of May. These values are not significantly different from the pH of 6.6 s.u. normally used for dischargers in the Gulf Coastal Plains Ecoregion. The use of site-specific average pH values is appropriate for this permit since the temperatures used to determine permit limits are also site-specific data.

During negotiations for the PAR, it was agreed upon by both parties to revise the temperature tiers. It was also agreed upon to include limits for short term discharges (discharges ≤ 5 days) and for long term discharges (discharges > 5 days) based upon the criteria in Rule 2.512. The permit now contains seven different tiers for temperature.

Parameter	AML, lb/day	AML, mg/l	7-day Avg., mg/l
Short Term Discharges (Discharges ≤ 5 days)			
April (avg. pH = 6.8 s.u.)			
Temp. ≤ 18.0°C	595.5	10.2	10.2
18.1°C ≤ Temp. ≤ 20.0°C	595.5	10.2	10.2
20.1°C ≤ Temp. ≤ 22.0°C	568.1	9.73	9.73
22.1°C ≤ Temp. ≤ 24.0°C	499.2	8.55	8.55
24.1°C ≤ Temp. ≤ 26.0°C	437.9	7.50	7.50
26.1°C ≤ Temp. ≤ 28.0°C	385.3	6.60	6.60
28.1°C ≥ Temp.	338.6	5.80	5.80
May (avg. pH = 6.4 s.u.)			
Temp. ≤ 18.0°C	437.9	7.5	7.5
18.1°C ≤ Temp. ≤ 20.0°C	437.9	7.5	7.5
20.1°C ≤ Temp. ≤ 22.0°C	437.9	7.5	7.5
22.1°C ≤ Temp. ≤ 24.0°C	437.9	7.5	7.5
24.1°C ≤ Temp. ≤ 26.0°C	437.9	7.5	7.5
26.1°C ≤ Temp. ≤ 28.0°C	413.3	7.08	7.08
28.1°C ≥ Temp.	363.7	6.23	6.23
(June – October)	356.1	6.1	6.1

Parameter	AML, lb/day	AML, mg/l	7-day Avg., mg/l
(November – March)	992.5	17.0	17.0
Long Term Discharges (Discharges > 5 days)			
April (avg. pH = 6.8 s.u.)			
Temp. ≤ 18.0°C	293.7	5.03	12.58
18.1°C ≤ Temp. ≤ 20.0°C	258.0	4.42	11.05
20.1°C ≤ Temp. ≤ 22.0°C	227.1	3.89	9.73
22.1°C ≤ Temp. ≤ 24.0°C	199.7	3.42	8.55
24.1°C ≤ Temp. ≤ 26.0°C	175.1	3.00	7.50
26.1°C ≤ Temp. ≤ 28.0°C	154.1	2.64	6.60
28.1°C ≥ Temp.	135.4	2.32	5.8
May (avg. pH = 6.4 s.u.)			
Temp. ≤ 18.0°C	291.9	5.00	7.50
18.1°C ≤ Temp. ≤ 20.0°C	276.7	4.74	7.50
20.1°C ≤ Temp. ≤ 22.0°C	243.4	4.17	7.50
22.1°C ≤ Temp. ≤ 24.0°C	213.7	3.66	7.50
24.1°C ≤ Temp. ≤ 26.0°C	188.0	3.22	7.50
26.1°C ≤ Temp. ≤ 28.0°C	165.2	2.83	7.08
28.1°C ≥ Temp.	145.4	2.49	6.23
(June – October)	140.2	2.4	6.1
(November – March)	397.0	6.8	17.0

The more stringent of the toxicity based limits and the limits obtained from the MultiSMP model, i.e., those based on maintaining the DO standard in the receiving stream will be placed in the permit.

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

The 208 Plan, developed by the DEQ under provisions of Section 208 of the federal Clean Water Act, is a comprehensive program to work toward achieving federal water goals in Arkansas. The initial 208 Plan, adopted in 1979, provides for annual updates, but can be revised more often if necessary. There are no 208 updates occurring with this permit renewal.

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

Outfall 010S

Reasonable potential calculations were not done for this outfall since it is considered to be an internal outfall for NPDES Permit No. AR0050296. Any necessary reasonable potential calculations performed for that permit will include the characteristics for this outfall.

For information regarding the determination of the metals limits at Outfall 010S, please see *Item 13. Basis for Permit Conditions, d. Toxics Pollutants, b. Permit Limits Determination* from the Fact Sheet of the previous permit which is included in the document located at the the following link:

https://www.adeq.state.ar.us/downloads/WebDatabases/PermitsOnline/NPDES/Permits/AR0049743.pdf

Outfall 001

Since the permittee did not discharge from Outfall 001 during the term of the previous permit and the effluent would be the same as the effluent from Outfall 010S, the Outfall 010S PPS results were used to determine if reasonable potential exists at Outfall 001.

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

The concentration of each pollutant after mixing with the receiving stream was compared to the applicable water quality standards as established in the Arkansas Water Quality Standards (AWQS), Rule 2 (Rule 2.508) and criteria obtained from the "Quality Criteria for Water, 1986 (Gold Book)."

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

The following items were used in calculations:

Parameter	Value	Source
Discharge Flow = Q	7 MGD = 10.83 cfs	Application
critical flow, 7Q10	0 cfs	USGS
LTA Background Flow	0 cfs	Calculated
TSS	5 mg/l	CPP, Attachment V
Hardness as $CaCO_3$	31 mg/l	CPP, Attachment VI
pH	7 s.u.	Neutral pH since no upstream data is available
Q_b background flow, Mixing zone flow for chronic toxicity	67% of 7Q10	Rule 2.508 and CPP-Appendix D
Q_b background flow, ZID flow for acute toxicity	33% of 7Q10	Rule 2.508 and CPP-Appendix D

The following pollutants were reported. Copper and Cyanide will not be evaluated since the permit already contains limits for those parameters.

Pollutant	Concentration Reported, µg/l	Number of Samples	Maximum Allowable MQL, µg/l
Copper, Total Rec.	6.8	22	0.5
Lead, Total Rec.	0.89	22	0.5
Mercury, Total Rec.	0.012	22	0.005
Nickel, Total Rec.	10	22	0.5
Zinc, Total Rec.	15	22	20
Total Phenols	3.59	3	5
Cyanide, Total Rec.	14	22	10

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

http://www.adeq.state.ar.us/downloads/WebDatabases/PermitsOnline/NPDES/PermitInformation/AR0033723_PPS%20for%20Outfall%20001_20191205.pdf

1. **Aquatic Toxicity Evaluation**

   a. Acute Criteria Evaluation

Pollutant	Concentration Reported (C_e) µg/l	$C_e \times 2.13$[1]	Instream Waste Concentration (IWC)	Criteria[2]	Reasonable Potential (Yes/No)
			Acute, µg/l	Acute, µg/l	
Lead, Total Rec.	0.89	0.89	0.89	87.29	No
Mercury, Total Rec.	0.012	0.012	0.012	6.70	No
Nickel, Total Rec.	10	10	10	1061.45	No
Zinc, Total Rec.	15	15	15	130.87	No

[1] Statistical ratio used to estimate the 95th percentile using a single effluent concentration or the geometric mean of a dataset. Not used with those parameters for which there were more than 20 samples.

[2] Criteria are from Rule 2.508 unless otherwise specified.

b. Chronic Criteria Evaluation

Pollutant	Concentration Reported (C_e) µg/l	$C_e \times 2.13$[1]	Instream Waste Concentration (IWC)	Criteria[2]	Reasonable Potential (Yes/No)
			Chronic, µg/l	Chronic, µg/l	
Lead, Total Rec.	0.89	0.89	0.89	3.40	No
Mercury, Total Rec.	0.012	0.012	0.012	0.012	No
Nickel, Total Rec.	10	10	10	117.88	No
Zinc, Total Rec.	15	15	15	119.50	No

[1] Statistical ratio used to estimate the 95th percentile using a single effluent concentration or the geometric mean of a dataset. Not used with those parameters for which there were more than 20 samples.
[2] Criteria are from Rule 2.508 unless otherwise specified.

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

Pollutant	Concentration Reported (C_e) µg/l	$C_e \times 2.13$[1]	Instream Waste Concentration (IWC)	Criteria[2]	Reasonable Potential (Yes/No)
Total Phenols	3.59	7.65	7.65	N/A	No

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

DEQ has determined from the submitted information that the discharge does not pose the reasonable potential to cause or contribute to an exceedance above a listed criteria. Limits continued from the previous permit are as follows:

Final Limits		
Pollutant	Monthly Average µg/l	Daily Maximum µg/l
Copper, Total Rec.	12.20	24.48
Selenium, Total Rec.	5.58	11.20
Cyanide, Total Rec.	5.80	11.64

13. TOTAL RESIDUAL CHLORINE (TRC) REQUIREMENTS

The permittee does not use disinfection at this facility since they are able to meet the FCB limits without it.

14. WHOLE EFFLUENT TOXICITY

Outfall 001

Outfall 001 Acute WET testing requirements were set forth in the permit appeal resolution for the previous renewal. See the following link for additional information: http://www.adeq.state.ar.us/downloads/WebDatabases/PermitsOnline/NPDES/PermitInformation/AR0033936_Permit%20Appeal%20Resolution_20150629.pdf

The Acute WET testing requirements have been removed from the permit at the direction of EPA Region VI.

Section 101(a)(3) of the Clean Water Act states that "……it is the national policy that the discharge of toxic pollutants in toxic amounts be prohibited……" To ensure that the CWA's prohibitions for toxics are met, EPA has issued a "Policy for the Development of Water Quality-Based Permit Limitations for Toxic Pollutants (49 FR 9016-9019, 3/9/84)." In support of the national policy, Region 6 adopted the "Policy for Post Third Round NPDES Permitting" and the "Post Third Round NPDES Permit Implementation Strategy" on October 1, 1992. In addition, DEQ is required under 40 C.F.R. § 122.44(d)(1), adopted by reference in Rule 6, to include conditions as necessary to achieve water quality standards as established under Section 303 of the Clean Water Act.

The Regional policy and strategy are designed to ensure that no source will be allowed to discharge any wastewater which (1) results in instream aquatic toxicity; (2) causes a violation of an applicable narrative or numerical State Water Quality Standard (WQS) resulting in non-conformance with the provisions of 40 C.F.R. § 122.44(d); (3) results in the endangerment of a drinking water supply; or (4) results in aquatic bioaccumulation which threatens human health.

Whole effluent toxicity (WET) testing has been established for assessing and protecting against impacts upon water quality and designated uses caused by the aggregate toxic effect of the discharge of pollutants. The stipulated test species, which are appropriate to measure whole effluent toxicity, are consistent with the requirements of the State Water Quality Standards. The WET testing frequency has been established to reflect the likelihood of ambient toxicity and to provide data representative of the toxic potential of the facility's discharge, in accordance with the regulations promulgated at 40 C.F.R. § 122.48.

Implementation

The chronic WET limits will remain unchanged from the previous permit.

Arkansas has established a narrative water quality standard under the authority of Section 303 of the CWA which states "toxic materials shall not be present in receiving waters in such quantities as to be toxic to human, animal, plant or aquatic life or to interfere with the normal propagation, growth and survival of aquatic biota."

Whole effluent toxicity testing conducted by the permittee has shown potential ambient toxicity to be the result of the permittee's discharge to the receiving stream or water body, at the appropriate instream critical dilution. Pursuant to 40 C.F.R. § 122.44(d)(1)(v), DEQ has determined from the permittee's self reporting that the discharge from this facility does have the reasonable potential to cause, or contribute to an instream excursion above the narrative standard within the applicable State Water Quality Standards, in violation of Section 101(a)(3) of the Clean Water Act. Therefore, the draft permit must establish both monthly average and 7-day minimum effluent limitations for lethality and sub-lethality following Regulations promulgated by 40 C.F.R. § 122.44(d)(1)(v). These effluent limitations for lethality and sub-lethality (7-day NOEC) are applied at Outfall 001 on the effective date of the permit. The daily average lethality and sub-lethality (7-day NOEC) and 7-day minimum lethality and/or sub-lethality (7-day NOEC) value shall not be less than 100% (Critical Dilution) and 80%, respectively, effluent for Outfall 001.

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

TOXICITY TESTS	FREQUENCY
Chronic WET	Once/quarter

Requirements for measurement frequency are based on the CPP.

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

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

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

Qd = Design flow = 7 MGD = 10.82 cfs
7Q10 = 0 cfs
Qb = Background flow = 0.67 × 7Q10 = 0 cfs
CD = (10.82) / (10.82 + 0) × 100 = 100%

Toxicity tests shall be performed in accordance with protocols described in "Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms", EPA/600/4-91/002, July 1994. A minimum of five effluent dilutions in addition to an appropriate control (0%) are to be used in the toxicity tests. These additional effluent concentrations are 32%, 45%, 56%, 80%, and 100% (See the CPP). The low-flow effluent concentration (critical dilution) is defined as 100% effluent. The requirement for chronic WET tests is based on the magnitude of the facility's discharge with respect to receiving stream flow. The stipulated test species, *Ceriodaphnia dubia* and the Fathead minnow (*Pimephales promelas*) are representative of organisms indigenous to the geographic area of the facility; the use of these is consistent with the requirements of the State water quality standards. The WET testing frequency has been established to provide data representative of the toxic potential of the facility's discharge, in accordance with the regulations promulgated at 40 C.F.R. § 122.48.

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

This permit may be reopened to require further WET testing studies, Toxicity Reduction Evaluation (TRE) and/or effluent limits if WET testing data submitted to the Division shows toxicity in the permittee's discharge. Modification or revocation of this permit is subject to the provisions of 40 C.F.R. § 122.62, as adopted by reference in APC&EC Rule 6. Increased or intensified toxicity testing may also be required in accordance with Section 308 of the Clean Water Act and Section 8- 4-201 of the Arkansas Water and Air Pollution Control Act (Act 472 of 1949, as amended).

Administrative Records

A discharge did not occur from Outfall 001 during the term of the previous permit.

Outfall 010S

Section 101(a)(3) of the Clean Water Act states that "…it is the national policy that the discharge of toxic pollutants in toxic amounts be prohibited." In addition, DEQ is required under 40 C.F.R. § 122.44(d)(1), adopted by reference in Rule 6, to include conditions as

necessary to achieve water quality standards as established under Section 303 of the Clean Water Act. Arkansas has established a narrative criteria which states "toxic materials shall not be present in receiving waters in such quantities as to be toxic to human, animal, plant or aquatic life or to interfere with the normal propagation, growth and survival of aquatic biota."

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

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

Requirements for measurement frequency are based on the CPP.

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

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

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

Qd = Permitted flow = 7 MGD = 10.82 cfs
7Q10 = 750 cfs
Qb = Background flow = 0.25 × 750 = 187.5 cfs
CD = (10.82) / (10.82 + 187.5) × 100 = 5.5%

Toxicity tests shall be performed in accordance with protocols described in "Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms", EPA/600/4-91/002, July 1994. A minimum of five effluent dilutions in addition to an appropriate control (0%) are to be used in the toxicity tests. These additional effluent concentrations are 2.3%, 3.1%, 4.1%, 5.5%, and 7.3% (See the CPP). The low-flow effluent concentration (critical dilution) is defined as 5.5% effluent. The requirement for chronic WET tests is based on the magnitude of the facility's discharge with respect to receiving stream flow. The stipulated test species, *Ceriodaphnia dubia* and the Fathead minnow (*Pimephales promelas*) are representative of organisms indigenous to the geographic area of the facility; the use of these is consistent with the requirements of the State water quality standards. The WET

testing frequency has been established to provide data representative of the toxic potential of the facility's discharge, in accordance with the regulations promulgated at 40 C.F.R. § 122.48.

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

This permit may be reopened to require further WET testing studies, Toxicity Reduction Evaluation (TRE) and/or effluent limits if WET testing data submitted to the Division shows toxicity in the permittee's discharge. Modification or revocation of this permit is subject to the provisions of 40 C.F.R. § 122.62, as adopted by reference in APC&EC Rule 6. Increased or intensified toxicity testing may also be required in accordance with Section 308 of the Clean Water Act and Section 8-4-201 of the Arkansas Water and Air Pollution Control Act (Act 472 of 1949, as amended).

Administrative Records

The following information summarizes toxicity tests submitted by the permittee during the term of the current permit at Outfall 010S.

Permit Number:	AR0033723	AFIN:		Outfall Number:	010S
Date of Review:	7/19/2019	Reviewer:	M. Barnett		
Facility Name:	City of El Dorado - South Plant				
Previous Dilution series:	2.3, 3.1, 4.1, 5.5, 7.3	Proposed Dilution Series:	2.3, 3.1, 4.1, 5.5, 7.3		
Previous Critical Dilution:	5.5	Proposed Critical Dilution:	5.5		
Previous TRE activities:	None				
Frequency recommendation by species					
Pimephales promelas (Fathead minnow):		once per quarter			
Ceriodaphnia dubia (water flea):		once per quarter			

TEST DATA SUMMARY

	Vertebrate (*Pimephales promelas*)		Invertebrate (*Ceriodaphnia dubia*)	
TEST DATE	Lethal	Sub-Lethal	Lethal	Sub-Lethal
	NOEC	NOEC	NOEC	NOEC
12/31/2016	7.3	7.3	7.3	7.3
3/31/2017	7.3	7.3	7.3	7.3
6/30/2017	7.3	7.3	7.3	7.3
12/31/2017	7.3	7.3	7.3	7.3
3/31/2018	7.3	7.3	7.3	7.3
6/30/2018	7.3	7.3	7.3	7.3
9/30/2018	7.3	7.3	7.3	7.3
12/31/2018	7.3	7.3	7.3	7.3
3/31/2019	7.3	7.3	7.3	7.3
Failures noted in BOLD				

REASONABLE POTENTIAL CALCULATIONS

	Vertebrate Lethal	**Vertebrate Sub-lethal**	**Invertebrate Lethal**	**Invertebrate Sub-Lethal**
Min NOEC Observed	7.3	7.3	7.3	7.3
TU at Min Observed	13.70	13.70	13.70	13.70
Count	9	9	9	9
Failure Count	0	0	0	0
Mean	13.699	13.699	13.699	13.699
Std. Dev.	0.000	0.000	0.000	0.000
CV	0.6	0.6	0.6	0.6
RPMF	1.8	1.8	1.8	1.8
Reasonable Potential	1.356	1.356	1.356	1.356
100/Critical dilution	18.182	18.182	18.182	18.182
Does Reasonable Potential Exist	No	No	No	No

PERMIT ACTION

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

15. STORMWATER REQUIREMENTS

The federal regulations at 40 C.F.R. § 122.26(b)(14)(ix) require major municipal dischargers to have NPDES permit coverage for stormwater discharges from the facility. These requirements include the development and implementation of a Stormwater Pollution Prevention Plan (SWPPP) to control the quality of stormwater discharges from the facility. In lieu of the development of a SWPPP, the facility may obtain a "No Exposure" Exclusion in accordance with 40 C.F.R. § 122.26(g) if several conditions can be certified. This facility was issued a "No Exposure" Exclusion under NPDES Tracking number ARR00C402.

16. **SAMPLE TYPE AND FREQUENCY**

Requirements for sample type and sampling frequency have been based on the current discharge permit. The sample type for Total Recoverable Mercury at Outfall 001 is grab for ease in using ultra clean sampling techiques. The sampling frequency for Total Recoverable Mercury at Outfall 001 is based on guidance in the Mercury TMDL implementation plan.

Parameter	Previous Permit		Final Permit	
	Frequency of Sample	Sample Type	Frequency of Sample	Sample Type
OUTFALL 001				
Flow	once/day	totalizing meter	once/day	totalizing meter
$CBOD_5$				
(May – October)	once/week	composite	once/week	composite
(November – April)	once/week	composite	once/week	composite
TSS				
(May – October)	once/week	composite	once/week	composite
(November – April)	once/week	composite	once/week	composite
Short Term Discharges (Discharges $\leq$ 5 days)				
NH_3-N				
(April)	once/week	composite	once/week	composite
(May)	once/week	composite	once/week	composite
(June – October)	once/week	composite	once/week	composite
(November – March)	once/week	composite	once/week	composite
Long Term Discharges (Discharges > 5 days)				
NH_3-N				
(April)	once/week	composite	once/week	composite
(May)	once/week	composite	once/week	composite
(June – October)	once/week	composite	once/week	composite
(November – March)	once/week	composite	once/week	composite
DO				
(May – October)	once/week	grab	once/week	grab
(November – April)	once/week	grab	once/week	grab

Parameter	Previous Permit		Final Permit	
	Frequency of Sample	Sample Type	Frequency of Sample	Sample Type
FCB				
(May – September)	once/week	grab	once/week	grab
(October – April)	once/week	grab	once/week	grab
Effluent Temperature				
(April – May)	three/week	grab	three/week	grab
$NO_3 + NO_2 – N$	once/month	grab	once/month	grab
Copper, Total Recoverable	once/month	composite	once/month	composite
Selenium, Total Recoverable	once/month	composite	once/month	composite
Cyanide, Total Recoverable	once/month	composite	once/month	composite
Mercury, Total Recoverable	N/A	N/A	once/year	grab
pH	once/week	grab	once/week	grab
Chronic WET Testing and Limits	once/quarter	composite	once/quarter	composite
Outfall 010S				
Flow, MGD	once/day	totalizing meter	once/day	totalizing meter
$CBOD_5$				
(May – October)	once/day	composite	three/week	composite
(November – April)	once/day	composite	three/week	composite
TSS	once/day	composite	once/day	composite
NH_3-N				
(May – October)	once/day	composite	three/week	composite
(November – April)	once/day	composite	three/week	composite
DO	once/day	grab	three/week	grab
FCB (col/100 ml)				
(May – September)	once/day	grab	three/week	grab
(October – April)	once/day	grab	three/week	grab
Mercury, Total Recoverable	once/month	composite	once/month	composite
Cadmium, Total Recoverable	once/month	composite	once/month	composite

Parameter	Previous Permit		Final Permit	
	Frequency of Sample	Sample Type	Frequency of Sample	Sample Type
Hexavalent Chromium, Dissolved	once/month	composite	once/month	composite
Copper, Total Recoverable	once/month	composite	once/month	composite
Lead, Total Recoverable	once/month	composite	once/month	composite
Nickel, Total Recoverable	once/month	composite	once/month	composite
Selenium, Total Recoverable	once/month	composite	once/month	composite
Silver, Total Recoverable	once/month	composite	once/month	composite
Zinc, Total Recoverable	once/month	composite	once/month	composite
Chromium (III), Total Recoverable	once/month	composite	once/month	composite
Cyanide, Total Recoverable	once/month	grab	once/month	grab
Sulfate	once/week	grab	once/week	grab
Chlorides	once/week	grab	once/week	grab
TDS	once/week	grab	once/week	grab
O & G	two/week	grab	two/week	grab
Total Phosphorus	once/day	composite	once/day	composite
pH	once/day	grab	once/day	grab
Chronic WET Testing	once/quarter	composite	once/quarter	composite

17. **PERMIT COMPLIANCE SCHEDULE**

Compliance with all permit limits is required on the effective date of the permit. The permit compliance schedule contains a due date for submittal of a review of the pretreatment program.

18. **MONITORING AND REPORTING**

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

19. **SOURCES**

The following sources were used to draft the permit:

A. Application No. AR0033723 received June 27, 2019, with all additional information submitted by October 4, 2019.

B. Arkansas Water Quality Management Plan (WQMP).
C. APC&EC Rule 2.
D. APC&EC Rule 3.
E. APC&EC Rule 6, which incorporates by reference certain federal regulations included in Title 40 of the Code of Federal Regulations at Rule 6.104.
F. 40 C.F.R. Parts 122, 125, 133, and 403.
G. Discharge permit file AR0033723.
H. Discharge permit file AR0049743 (including all document related to appeal of 2007 permit).
I. Discharge permit file AR0050296 (including all documents related to appeal of 2007 permit).
J. Discharge Monitoring Reports (DMRs).
K. "2016 Integrated Water Quality Monitoring and Assessment Report," DEQ.
L. "2016 List of Impaired Waterbodies (303(d) List)," DEQ, July 2017.
M. *TMDLs for Segments Listed for Mercury in Fish Tissue for the Ouachita River Basin and Bayou Bartholomew, Arkansas and Louisiana to Columbia* dated December 18, 2002.
N. "Identification and Classification of Perennial Streams of Arkansas," Arkansas Geological Commission.
O. Continuing Planning Process (CPP).
P. Technical Support Document for Water Quality-based Toxic Control.
Q. Compliance Review Memo from Layne Pemberton to Loretta Carstens, P.E. dated September 30, 2019.
R. Water Quality Model dated October 15, 2013 (and reviewed May 19, 2020).
S. Permit Appeal Resolution dated June 29, 2015.
T. Arkansas Supreme Court Rule Docket 09-1093 dated October 7, 2010.
U. Reallocation of $CBOD_5$ agreement.

20. PUBLIC NOTICE

The public notice describes the procedures for the formulation of final determinations and shall provide for a public comment period of 30 days. During this period, any interested persons may submit written comments on the permit and may request a public hearing to clarify issues involved in the permitting decision. A request for a public hearing shall be in writing and shall state the nature of the issue(s) proposed to be raised in the hearing.

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

21. PERMIT FEE

In accordance with Rule 9.403(B), the annual fee for the permit is calculated from the Design Flow (Q, in MGD) as follows:

Fee = \$5,000 + (900 × (Q-1)) = \$5,000 + (900 × (7-1)) = \$10,400

22. **POINT OF CONTACT**

For additional information, contact:

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

ATTACHMENT I

MONITORING RESULTS FOR ANNUAL PRETREATMENT REPORT

REPORTING YEAR: _____ / _____ / _____ TO _____ / _____ / _____

PERMITTEE NAME: _____ NPDES PERMIT NO. _____

AVERAGE POTW FLOW: _____MGD PERCENT INDUSTRIAL FLOW: _____%

POLLUTANT (Total)	MAHC[2] (µg/l)	INFLUENT DATES SAMPLED (µg/l) once/quarter				WQ level / limit[2] (µg/l)	EFFLUENT DATES SAMPLED (µg/l) once/quarter				LABORATORY ANALYSIS		
		Date	Date	Date	Date		Date	Date	Date	Date	EPA MQL[1] (µg/l)	EPA Method Used[1]	Detection Level Achieved (µg/l)
Antimony	N/A					N/A					60		
Arsenic											0.5		
Beryllium											0.5		
Cadmium											0.5		
Chromium											10		
Copper											0.5		
Lead											0.5		
Mercury											0.005		
Nickel											0.5		
Selenium											5		
Silver											0.5		
Thallium	N/A					N/A					0.5		
Zinc											20		
Cyanide											10		
Phenols	N/A					N/A					5		
Molybdenum						N/A							
Flow, MGD	N/A					N/A							
[3]													
[3]													
[3]													
[3]													
[3]													

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POLLUTANT (Total)	MAHC[2] (µg/l)	INFLUENT DATES SAMPLED (µg/l) once/quarter				WQ level / limit[2] (µg/l)	EFFLUENT DATES SAMPLED (µg/l) once/quarter				LABORATORY ANALYSIS		
		Date	Date	Date	Date		Date	Date	Date	Date	EPA MQL[1] (µg/l)	EPA Method Used[1]	Detection Level Achieved (µg/l)
[3]													
[3]													
[3]													
[3]													
[3]													
[3]													
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[3]													
[3]													
[3]													

[1] It is advised that the influent and effluent samples are collected considering flow detention time through each plant. **Analytical MQLs must be met for the effluent (and SHOULD be met for the influent) so the data can also be used for Local Limits assessment and NPDES application purposes.**

[2] This value was calculated during the development of technically-based local limits (TBLLs) based on State WQ criteria, EPA guidance, and either ADEQ Pretreatment staff Excel spreadsheets or the permittee's consultant with concurrence from ADEQ Pretreatment staff.

[3] Record the name of any pollutant [40 C.F.R. 122, Appendix D, Table II and/or Table V] detected and the concentration at which they were detected.

MAHC - Maximum Allowable Headworks Concentration

WQ - "Water Quality Levels not to exceed" OR actual permit limit.

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ATTACHMENT II
PRETREATMENT PROGRAM STATUS REPORT
UPDATED SIGNIFICANT INDUSTRIAL USERS LIST

Industrial User Name	SIC/NAICS Code	40 C.F.R. XXX or N/A	Control Document		New User	Times Inspected	Times Sampled	Compliance Status **(N/A, C, NC, or SNC)**				**Permit Limits** (denote parameter violated & number of times)
								Reports				
			Y/N	Last Action				BMR	90-day Compliance	Semi Annual	Self Monitoring	

Include NAICS code(s)
3rd column – include the CFR # only if the Category has Pretreatment Standards (numeric or narrative)
Please footnote N/A reason

ATTACHMENT III
SIGNIFICANT NON-COMPLIANT (SNC) INDUSTRIES - ENFORCEMENT ACTIONS TAKEN

Industrial User Name	Nature of Violation		Number of Action Taken					Penalties Collected	Compliance Schedule		Current Status	Comments
	Reports	Limits	N.O.V.	A.O.	Civil	Criminal	Other		Date Issued	Date Due		

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ATTACHMENT IV
PRETREATMENT PERFORMANCE SUMMARY (PPS)

NOTE: All questions refer to the Industrial Pretreatment Program as approved by the DEQ. The permittee should not answer the questions based on changes made to the Approved Program without Division Authorization.

I. General Information

Control Authority Name: _____

Mailing Address: _____

City: _____ State / Zip Code: _____

Pretreatment Contact: _____ Title: _____

Contact Telephone Number: _____

NPDES Permit Number(s): _____

Reporting Period: _____ _____
(Beginning month, day, and year) (Ending month, day, and year)

Total Number of Categorical IUs: _____

Total Number of Significant Non-categorical IUs: _____

Total Number of Non-significant (yet permitted) IUs: _____

II. Significant Industrial User Compliance

	Significant Industrial Users	
	Categorical	Non-categorical
1) Number of SIUs Submitting BMRs	_____	N/A
Total Number Required	_____	N/A
2) Number of SIUs Submitting 90-day Compliance Reports	_____	N/A
Total Number Required	_____	N/A
3) Number of SIUs Submitting Semiannual Reports	_____	_____
Total Number Required	_____	_____
4) Number of SIUs Meeting Compliance Schedule	_____	_____
Total Number Required to Meet Schedule	_____	_____
5) Number of SIUs in Significant Noncompliance	_____	_____
Total Number of SIUs	_____	_____
6) Rate (%) of Significant Noncompliance for all SIUs (categorical and non-categorical)	_____	

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III. Compliance Monitoring Program

		Significant Industrial Users	
		Categorical	Non-categorical
1)	Number of Control Documents Issued	_____	_____
	Total Number Required	_____	_____
2)	Number of Non-sampling Inspections Conducted	_____	_____
	Total Number Required	_____	_____
3)	Number of Sampling Visits Conducted	_____	_____
	Total Number Required	_____	_____
4)	Number of Facilities Inspected (non-sampling)	_____	_____
	Total Number Required	_____	_____
5)	Number of Facilities Sampled	_____	_____
	Total Number Required	_____	_____

IV. Enforcement Actions

		Significant Industrial Users	
		Categorical	Non-categorical
1)	Number of Compliance Schedules Issued	_____	_____
	Total Number of Schedules Required	_____	_____
2)	Number of Notices of Violation Issued to SIUs	_____	_____
3)	Number of Administrative Orders Issued to SIUs	_____	_____
4)	Number of Civil Suits Filed	_____	_____
5)	Number of Criminal Suits Filed	_____	_____
6)	Number of Significant Violators (attach newspaper publication)	_____	_____
7)	Amount of Penalties (not surcharges) Collected (Total Dollars)	$ _____	$ _____
	(Total Number of IUs Assessed)	_____	_____
8)	Other Actions (sewer bans, *etc.*)	_____	_____

The following certification must be signed in order for this form to be considered complete:

I certify that the information contained herein is complete and accurate to the best of my knowledge.

Authorized Representative: _____ Date: _____

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