Permit Number: AR0033316
AFIN: 35-00149

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.),

Pine Bluff Wastewater Utility
Boyd Point Wastewater Treatment Facility

is authorized to discharge treated municipal wastewater from a facility located as follows: 900 Island Harbor Marina Road, Pine Bluff, AR 71601, 1.5 miles from Highway79 on Island Harbor Marina Road in Jefferson County, Arkansas. The applicant's mailing address is: 1520 South Ohio Street, Pine Bluff, AR 71601.

Facility Coordinates: Latitude: 34° 16' 17.89" N; Longitude: 91° 58' 21.17" W

Receiving stream: The Arkansas River in Segment 3C of the Arkansas River Basin.

The permitted outfall is located at the following coordinates:

Outfall 001: Latitude: 34° 16' 32.0" N; Longitude: 91° 57' 58.6" W

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

A Response to Comment is attached to the permit.

Effective Date:	July 1, 2015
Minor Modification Effective Date:	July 22, 2015
Expiration Date:	June 30, 2020

Ellen Carpenter
Chief, Water Division
Arkansas Department of Environmental Quality

July 22, 2015
Minor Modification Issue Date

PART I
PERMIT REQUIREMENTS

SECTION A1. FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS: OUTFALL 001
(Daily Upstream Flow < 5000 cfs) - 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	Sample Type
	Monthly Avg.	Monthly Avg.	7-Day Avg.		
Flow	N/A	Report, MGD	14.0 MGD[2] (Daily Max.)	once/day	totalizing meter
Upstream Flow[1]	N/A	Report, MGD	Report, MGD (Daily Max.)	once/day	record
Overflows	Monthly Total SSOs (occurrences/month)			See Comments[3]	
Overflow Volume	Monthly Total Volume of SSOs (gallons/month)			See Comments[3]	
Carbonaceous Biochemical Oxygen Demand (CBOD5)					
(May-Oct)	N/A	25.0	37.5	four/week[6]	composite
Biological Oxygen Demand (BOD5)					
(Nov-Apr)	N/A	30.0	45.0	four/week[6]	composite
Total Suspended Solids (TSS)	N/A	90.0	135.0	four/week[6]	composite
Ammonia Nitrogen (NH3-N)					
(May-Oct)	N/A	15.0	22.5	once/week[6]	composite
Dissolved Oxygen (DO)	N/A	2.0 (Inst. Min.)		two/week[6]	grab
Fecal Coliform Bacteria (FCB)		(colonies/100ml)			
(Apr-Sept)	N/A	200	400	once/week[6]	grab
(Oct-Mar)	N/A	1000	2000	once/week[6]	grab
Total Residual Chlorine (TRC)[4]	N/A	0.1 (Inst. Max.)		five/week	five/week
Total Phosphorus (TP)	N/A	Report	Report	once/month	grab
Nitrate + Nitrite Nitrogen (NO3 + NO2-N)	N/A	Report	Report	once/month	grab
pH	N/A	Minimum 6.0 s.u.	Maximum 10.5 s.u.	once/day	grab

Effluent Characteristics	**Discharge Limitations**			**Monitoring Requirements**	
	Mass (lbs/day, unless otherwise specified)	Concentration (mg/l, unless otherwise specified)		Frequency	Sample Type
	Monthly Avg.	Monthly Avg.	7-Day Avg.		
Chronic WET Testing[5]	N/A	Report		once/quarter	24-hr composite
Pimephales promelas (Chronic)[5]		7-Day Average			
Pass/Fail Lethality (7-day NOEC) TLP6C		Report (Pass=0/Fail=1)		once/quarter	24-hr composite
Pass/Fail Growth (7-day NOEC)TGP6C		Report (Pass=0/Fail=1)		once/quarter	24-hr composite
Survival (7-day NOEC) TOP6C		Report %		once/quarter	24-hr composite
Coefficient of Variation (Growth) TQP6C		Report %		once/quarter	24-hr composite
Growth (7-day NOEC) TPP6C		Report %		once/quarter	24-hr composite
Ceriodaphnia dubia (Chronic)[5]		7-Day Average			
Pass/Fail Lethality (7-day NOEC) TLP3B		Report (Pass=0/Fail=1)		once/quarter	24-hr composite
Pass/Fail production (7-day NOEC)TGP3B		Report (Pass=0/Fail=1)		once/quarter	24-hr composite
Survival (7-day NOEC) TOP3B		Report %		once/quarter	24-hr composite
Coefficient of Variation (Reproduction) TQP3B		Report %		once/quarter	24-hr composite
Reproduction (7-day NOEC) TPP3B		Report %		once/quarter	24-hr composite

[1] See Condition No. 9 Part II (Upstream Flow Reporting).
[2] See Condition No. 10.A of Part II (Discharge Flow restriction).
[3] See Condition No. 5 of Part II (SSO Condition). If there are no overflows during the entire month, report "zero" (0).
[4] See Condition No. 8 of Part II (TRC Condition).
[5] See Condition No. 12 of Part II (WET Testing Condition).
[6] Monitoring frequencies of the noted parameters have been reduced in accordance with EPA document 833-B-96-001, "Interim Guidance for Performance-Based Reductions of NPDES Permit Monitoring Frequencies", April 1996.

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

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge during the entire monitoring period. Samples shall be taken after final treatment at the monitoring station located after the chlorine contact chamber. Total Residual Chlorine (TRC) may also be sampled at the outfall to the Arkansas River.

PERMIT REQUIREMENTS

SECTION A2. FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS: OUTFALL 001
(Daily Upstream Flow ≥ 5000 cfs) - 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	Sample Type
	Monthly Avg.	Monthly Avg.	7-Day Avg.		
Flow	N/A	Report, MGD	30.0 MGD[2] (Daily Max.)	once/day	totalizing meter
Upstream Flow[1]	N/A	Report, MGD	Report, MGD (Daily Max.)	once/day	record
Overflows	Monthly Total SSOs (occurrences/month)			See Comments[3]	
Overflow Volume	Monthly Total Volume of SSOs (gallons/month)			See Comments[3]	
Carbonaceous Biochemical Oxygen Demand (CBOD5)					
(May-Oct)	N/A	25.0	37.5	four/week[6]	composite
Biological Oxygen Demand (BOD5)					
(Nov-Apr)	N/A	30.0	45.0	four/week[6]	composite
Total Suspended Solids (TSS)	N/A	90.0	135.0	four/week[6]	composite
Ammonia Nitrogen (NH3-N)					
(May-Oct)	N/A	15.0	22.5	once/week[6]	composite
Dissolved Oxygen (DO)	N/A	2.0 (Inst. Min.)		two/week[6]	grab
Fecal Coliform Bacteria (FCB)		(colonies/100ml)			
(Apr-Sept)	N/A	200	400	once/week[6]	grab
(Oct-Mar)	N/A	1000	2000	once/week[6]	grab
Total Residual Chlorine (TRC)[4]	N/A	0.1 (Inst. Max.)		five/week	five/week
Total Phosphorus (TP)	N/A	Report	Report	once/month	grab
Nitrate + Nitrite Nitrogen (NO3 + NO2-N)	N/A	Report	Report	once/month	grab
pH	N/A	Minimum 6.0 s.u.	Maximum 10.5 s.u.	once/day	grab

Effluent Characteristics	**Discharge Limitations**			**Monitoring Requirements**	
	Mass (lbs/day, unless otherwise specified)	Concentration (mg/l, unless otherwise specified)		Frequency	Sample Type
	Monthly Avg.	Monthly Avg.	7-Day Avg.		
Chronic WET Testing[5]	N/A	Report		once/quarter	24-hr composite
Pimephales promelas (Chronic)[5]		7-Day Average			
Pass/Fail Lethality (7-day NOEC) TLP6C		Report (Pass=0/Fail=1)		once/quarter	24-hr composite
Pass/Fail Growth (7-day NOEC)TGP6C		Report (Pass=0/Fail=1)		once/quarter	24-hr composite
Survival (7-day NOEC) TOP6C		Report %		once/quarter	24-hr composite
Coefficient of Variation (Growth) TQP6C		Report %		once/quarter	24-hr composite
Growth (7-day NOEC) TPP6C		Report %		once/quarter	24-hr composite
Ceriodaphnia dubia (Chronic)[5]		7-Day Average			
Pass/Fail Lethality (7-day NOEC) TLP3B		Report (Pass=0/Fail=1)		once/quarter	24-hr composite
Pass/Fail production (7-day NOEC)TGP3B		Report (Pass=0/Fail=1)		once/quarter	24-hr composite
Survival (7-day NOEC) TOP3B		Report %		once/quarter	24-hr composite
Coefficient of Variation (Reproduction) TQP3B		Report %		once/quarter	24-hr composite
Reproduction (7-day NOEC) TPP3B		Report %		once/quarter	24-hr composite

[1] See Condition No. 9 Part II (Upstream Flow Reporting).
[2] See Condition No. 10.B of Part II (Discharge Flow restriction).
[3] See Condition No. 5 of Part II (SSO Condition). If there are no overflows during the entire month, report "zero" (0).
[4] See Condition No. 8 of Part II (TRC Condition).
[5] See Condition No. 12 of Part II (WET Testing Condition).
[6] Monitoring frequencies of the noted parameters have been reduced in accordance with EPA document 833-B-96-001, "Interim Guidance for Performance-Based Reductions of NPDES Permit Monitoring Frequencies", April 1996.

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

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge during the entire monitoring period. Samples shall be taken after final treatment at the monitoring station located after the chlorine contact chamber. Total Residual Chlorine (TRC) may also be sampled at the outfall to the Arkansas River.

SECTION B. PERMIT COMPLIANCE SCHEDULE

None.

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 APCEC Regulation No. 3.

2. For publicly owned treatment works, the 30-day average percent removal for Biochemical Oxygen Demand (BOD5)/Carbonaceous Biochemical Oxygen Demand (CBOD5) and Total Suspended Solids shall not be less than 85 percent and 65 percent, respectively, unless otherwise authorized by the permitting authority in accordance with 40 CFR Part 133.102, as adopted by reference in APCEC Regulation No. 6. The permittee must monitor the influent BOD5 and TSS at least once per year during a standard sampling event as required in Part IA above. This influent and effluent information must be used to calculate the percent removal to ensure compliance with the required removal efficiency. This information must be maintained on site and provided to Department personnel upon request.

3. Sludge is accumulating in the bottom of the treatment ponds. Removal and disposal of accumulated sludge requires prior written authorization from the Department.

4. Monitoring Frequency Reduction

   The monitoring frequencies for Carbonaceous Biochemical Oxygen Demand (CBOD5), Biological Oxygen Demand (BOD5), Total Suspended Solids (TSS), Ammonia Nitrogen (NH3-N), Dissolved Oxygen (DO), and Fecal Coliform Bacteria (FCB) have been reduced in accordance with EPA Document 833-B-96-001 "Interim Guidance for Performance-based Reduction of NPDES Permit Monitoring Frequencies", April 1996. The facility must remain in compliance with all limitations and requirements of the permit, (including, but not limited to: exceedance of effluent limitations of the parameters for which reductions have been granted or failure to submit DMRs), and must not be subject to a new formal enforcement action, or the permit may be reopened to increase the monitoring frequencies of the above noted parameters, in accordance with Part II.6 of the permit.

   This is a one-time reduction in monitoring frequencies. The facility is not eligible for any further monitoring frequency reductions.

5. Sanitary Sewer Overflow (SSO) Reporting Requirements:

   All SSOs are prohibited.

   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; or
      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. Immediate Reporting

Overflows that endanger health or the environment shall be orally reported to the Enforcement Branch of the Water Division by telephone (501-682-0638) or by email waterenfsso@adeq.state.ar.us within 24 hours from the time the permittee becomes aware of the circumstance.

C. Follow-Up Written Reports/email:

A written report of overflows that endanger health or the environment shall be provided to ADEQ within 5 days of the time the permittee becomes aware of the circumstance.

At a minimum, the report shall identify:

1. The location(s) of overflow;
2. The receiving water (If there is one);
3. The duration of overflow;
4. Cause of overflow; and
5. The estimated volume of overflow (gal).

A 24-hr and 5-day follow-up written report can be filled-in or downloaded from the ADEQ /Water Division/Enforcement Branch Web page at

http://www.adeq.state.ar.us/water/branch_enforcement/forms/sso_report.asp

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

7. Other Specified Monitoring Requirements

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

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

Upon written approval of the alternative monitoring method and/or analytical instruments, these methods or instruments must be consistently utilized throughout the monitoring period.

ADEQ must be notified in writing and the permittee must receive written approval from ADEQ if the permittee decides to return to the original permit monitoring requirements.

8. The effluent limitation for TRC is the instantaneous maximum and cannot be averaged for reporting purposes. TRC shall be measured within fifteen (15) minutes of sampling. If the TRC test results are less than the MQL of 0.033 mg/l, a value of zero (0) may be used for the Discharge Monitoring Report (DMR) calculations and reporting requirements.

9. Upstream Flow Monitoring Requirements:

   The permittee is required to monitor the upstream flow. Receiving stream flow shall be obtained from the U.S. Corps of Engineers at Arkansas River Lock and Dam No. 5 by contacting the local Lock Master via telephone or using the U.S. Corp of Engineers website (http://www.swl-wc.usace.army.mil/). Records shall be kept and available for inspection upon request.

10. Discharge flow is restricted as follows:

    A. **Upstream Flow < 5,000 cfs**

    When the river flow (Upstream Flow as determined in accordance with Part II.9) is less than 5,000 cfs, the permittee can only discharge up to 14 MGD (Daily Max.). The permittee shall report the number of days per month that the total daily discharge from the facility exceeds this condition.

    B. **Upstream Flow >= 5,000 cfs**

    When the river flow(Upstream Flow as determined in accordance with Part II.9) is greater than or equal to 5,000 cfs, the permittee can only discharge up to 30 MGD (Daily Max.). The permittee shall report the number of days per month that the total daily discharge from the facility exceeds this condition.

11. 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, the General Pretreatment Regulations (40 CFR Part 403) and the approved POTW pretreatment program submitted by the permittee. The pretreatment program was approved on September 18, 1984, modified on September 8, 1992 and modified again on April 4, 2013. 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 CFR 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 CFR 403.3 (v), this control shall be achieved through individual control mechanisms, in accordance with 40 CFR 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 CFR 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 CFR 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 ADEQ.

b. The permittee shall establish and enforce specific limits to implement the provisions of 40 CFR Parts 403.5(a) and (b), as required by 40 CFR Part 403.5(c). POTWs may develop Best Management Practices (BMPs) to implement paragraphs 40 CFR 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 (TBLL) 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 TBLL will be submitted within 12 months of the effective date of this permit, OR (3) a WRITTEN NOTIFICATION that local limits are not necessary for any pollutant at this time.

All specific prohibitions or limits developed under this requirement are deemed to be conditions of this permit. The specific prohibitions set out in 40 CFR Part 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 CFR 122 Appendix D (NPDES Application Testing Requirements) Table II at least once/year and the toxic pollutants in Table III at least 4 times/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, 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 4 times/year (quarterly) on both the influent and the effluent.

The influent and effluent samples collected shall be composite samples consisting of at least 12 aliquots collected at approximately equal intervals over a representative 24 hour period and composited according to flow. Sampling and analytical procedures shall be in accordance with guidelines established in 40 CFR 136. Where composite samples are inappropriate, due to sampling, holding time, or analytical constraints, at least 4 grab samples, taken at equal intervals over a representative 24 hour period, shall be taken.

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 CFR Part 403.8(f)(2)(viii) or criteria established in the approved POTW pretreatment program. This list is to be published annually in the newspaper of general circulation that provides meaningful public notice within the jurisdiction(s) served by the POTW during the month of **March**.

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 AR0033316 covered for the permittee's approved Pretreatment Program.

In addition, by 4:30 pm (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 ADEQ containing the following information:

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

   (a) Industrial Users subject to the following categorical Pretreatment Standards [Organic Chemicals, Plastics, and Synthetic Fibers (OCPSF) (40 CFR Part 414), Petroleum Refining (40 CFR Part 419), and Pesticide Chemicals (40 CFR 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 CFR 403.6(c)(6).

   (b) 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 CFR 403.6(c)(5).

   (c) 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 CFR 403 (b), (e) and (h).

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

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

   (b) Control document status. Whether the user has an effective control document, and the date such document was last issued, reissued, or modified, (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:

      - total number of inspections performed;

      - total number of sampling visits made;

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

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

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

      - Significant Noncompliance (SNC) - in accordance with requirements described in 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;

      (1) 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;

      (2) 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;

      (3) The results of all influent and effluent analyses performed pursuant to paragraph c. above;

(4) 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.

(5) The information requested may be submitted in tabular form as per the example tables provided for your convenience (See Attachment A, B and C); and

(6) 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 which would be subject to Sections 301 and 306 of the Act 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.

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

1. SCOPE AND METHODOLOGY

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

APPLICABLE TO FINAL OUTFALL(S):	001
REPORTED ON DMR AS FINAL OUTFALL:	001
CRITICAL DILUTION (%):	9
EFFLUENT DILUTION SERIES (%):	4, 5, 7, 9, & 12
TESTING FREQUENCY	once/quarter
COMPOSITE SAMPLE TYPE:	Defined at PART II.12.3.d
TEST SPECIES/METHODS:	40 CFR Part 136

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

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

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

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

2. PERSISTENT LETHAL and/or SUB-LETHAL EFFECTS

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

If a frequency reduction, as specified in Item 6, has been granted and If any subsequent valid test demonstrates significant lethal or sub-lethal effects to a test species at or below the critical dilution, the frequency of testing for that species is automatically increased to once per quarter for the life of the permit. In addition:

a. Part I Testing Frequency Other Than Monthly

i. The permittee shall conduct a total of three (3) additional tests for any species that demonstrates significant toxic effects at or below the critical dilution. The additional tests shall be conducted monthly during the next three consecutive months. If testing on a quarterly basis, the permittee may substitute one of the additional tests in lieu of one

routine toxicity test. A full report shall be prepared for each test required by this section in accordance with procedures outlined in Item 4 of this section and submitted with the period discharge monitoring report (DMR) to the permitting authority for review.

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

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

iv. The provisions of Item 2.a.i. are suspended upon submittal of the TRE Action Plan.

b. Part I Testing Frequency of Monthly

The permittee shall initiate the Toxicity Reduction Evaluation (TRE) requirements as specified in Item 5 of this section when any two of three consecutive monthly toxicity tests exhibit significant toxic effects at or below the critical dilution. A TRE may also be required due to a demonstration of intermittent lethal and/or sub-lethal effects at or below the critical dilution, or for failure to perform the required retests.

3. REQUIRED TOXICITY TESTING CONDITIONS

a. Test Acceptance

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

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

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

iii. 60% of the surviving control females must produce three broods. The mean dry weight of surviving Fathead minnow larvae at the end of the 7 days in the control (0% effluent) must be 0.25 mg per larva or greater.

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

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

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

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

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

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

b. Statistical Interpretation

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

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

iii. If the conditions of Test Acceptability are met in Item 3.a above and the percent survival of the test organism is equal to or greater than 80% in the critical dilution concentration and all lower dilution concentrations, the test shall be considered to be a passing test, and the permittee shall report a survival NOEC of not less than the critical dilution for the DMR reporting requirements found in Item 4 below.

c. Dilution Water

i. Dilution water used in the toxicity tests will be receiving water collected as close to the point of discharge as possible but unaffected by the discharge. The permittee shall substitute synthetic dilution water of similar pH, hardness, and alkalinity to the closest downstream perennial water for;

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

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

ii. If the receiving water is unsatisfactory as a result of instream toxicity (fails to fulfill the test acceptance criteria of Item 3.a), the permittee may substitute synthetic dilution water for the receiving water in all subsequent tests provided the unacceptable receiving water test met the following stipulations:

(A) a synthetic dilution water control which fulfills the test acceptance requirements of Item 3.a was run concurrently with the receiving water control;

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

(C) the permittee includes all test results indicating receiving water toxicity with the full report and information required by Item 4 below; and

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

d. Samples and Composites

i. The permittee shall collect a minimum of three flow-weighted composite samples from the outfall(s) listed at Item 1.a above. Unless otherwise stated in this section, a composite sample for WET shall consist of a minimum of 12 subsamples gathered at equal time intervals during a 24-hour period.

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

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

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

v. If the flow from the outfall(s) being tested ceases during the collection of effluent samples, the requirements for the minimum number of effluent samples, the minimum number of effluent portions and the sample holding time are waived during that sampling period. However, the permittee must have collected an effluent composite sample volume during the period of discharge that is sufficient to complete the required toxicity tests with daily renewal of effluent. When possible, the effluent samples used for the toxicity tests shall be collected on separate days if the discharge occurs over multiple days. The effluent composite sample collection duration and the static renewal protocol associated with the abbreviated sample collection must be documented in the full report required in Item 4 of this section.

vi. MULTIPLE OUTFALLS: If the provisions of this section are applicable to multiple outfalls, the permittee shall combine the composite effluent samples in proportion to the average flow from the outfalls listed in item 1.a. above for the day the sample was collected. The permittee shall perform the toxicity test on the flow-weighted composite of the outfall samples.

vii. 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.

4. REPORTING

a. The permittee shall prepare a full report of the results of all tests conducted pursuant to this section in accordance with the Report Preparation Section of EPA/821/R-02-013, or the most current publication, for every valid or invalid toxicity test initiated whether carried to completion or not. The permittee shall retain each full report pursuant to the provisions of PART III.C.3 7 of this permit. The permittee shall submit full reports. For any test which fails, is considered invalid or which is terminated early for any reason, the full report must be submitted for agency review.

b. A valid test for each species must be reported on the DMR during each reporting period specified in PART I of this permit unless the permittee is performing a TRE which may increase the frequency of testing and reporting. Only ONE set of WET test data for each species is to be recorded on the DMR for each reporting period. The data submitted should reflect the LOWEST lethal and sub-lethal effects results for each species during the reporting period. The full reports for all invalid tests, repeat tests (for invalid tests), and retests (for tests previously failed) performed during the reporting period must be attached to the DMR for Agency review.

c. The permittee shall submit the results of each valid toxicity test on the subsequent monthly DMR for that reporting period in accordance with PART III.D.4 of this permit, as follows below. Submit retest information clearly marked as such with the following month's DMR. Only results of valid tests are to be reported on the DMR.

i. Pimephales promelas (Fathead minnow)

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

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

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

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

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

ii. Ceriodaphnia dubia

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

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

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

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

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

5. TOXICITY REDUCTION EVALUATIONS (TREs)

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

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

i. Specific Activities. The plan shall detail the specific approach the permittee intends to utilize in conducting the TRE. The approach may include toxicity characterizations, identifications and confirmation

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

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

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

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

Where the permittee has identified or suspects specific pollutant(s) and/or source(s) of effluent toxicity, the permittee shall conduct, concurrent with toxicity testing, chemical specific analyses for the identified and/or suspected pollutant(s) and/or source(s) of effluent toxicity. Where lethality was demonstrated within 48 hours of test initiation, each composite sample shall be analyzed independently. Otherwise the permittee may substitute a composite sample, comprised of equal portions of the individual composite samples, for the chemical specific analysis;

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

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

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

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

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

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

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.

d. 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.

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

6. MONITORING FREQUENCY REDUCTION

a. The permittee may apply for a testing frequency reduction upon the successful completion of the first four consecutive quarters of testing (in accordance with Item 1.a.) after the expiration date of the previous permit, for one or both test species, provided that all of the following conditions are met:

i. The permittee tested quarterly upon the expiration date of that permit;
ii. The issuance of the renewed permit was not delayed by any fault of the permittee; and
iii. No lethal or sub-lethal effects are demonstrated at or below the critical dilution for the first four consecutive quarters of testing after the expiration date of the previous permit.

If any of the above conditions are not met, the permittee may apply for a testing frequency reduction upon the successful completion of the first four consecutive quarters of testing (in accordance with Item 1.a.) after the renewal permit is issued, for one or both test species, with no lethal or sub-lethal effects demonstrated at or below the critical dilution. If granted, the monitoring frequency for that test species may be reduced to not less than once per year for the less sensitive species (usually the Fathead minnow) and not less than twice per year for the more sensitive test species (usually the Ceriodaphnia dubia).

b. CERTIFICATION - The permittee must certify in writing that no test failures have occurred and that all tests meet all test acceptability criteria in item 3.a. above. In addition the permittee must provide a list with each test performed including test initiation date, species, NOECs for lethal and sub-lethal effects and the maximum coefficient of variation for the controls. Upon review and acceptance of this information the 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.

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

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

13. Best Management Practices (BMPs), as defined in Part IV.6, 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.

PART III
STANDARD CONDITIONS

SECTION A – GENERAL CONDITIONS

1. **Duty to Comply**

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

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

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

3. **Permit Actions**

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

A. Violation of any terms or conditions of this permit; or
B. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or
C. A change in any conditions that requires either a temporary or permanent reduction or elimination of the authorized discharge; or
D. A determination that the permitted activity endangers human health or the environment and can only be regulated to acceptable levels by permit modification or termination.
E. Failure of the permittee to comply with the provisions of APCEC Regulation No. 9 (Permit fees) as required by Part III.A.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 APCEC Regulation No. 2, as amended, or Section 307(a) of the Clean Water Act for a toxic pollutant which is present in the discharge and that standard or prohibition is more stringent than any limitations on the pollutant in this permit, this permit shall be modified or revoked and reissued to conform to the toxic effluent standards or prohibition and the permittee so notified.

The permittee shall comply with effluent standards, narrative criteria, or prohibitions established under APCEC Regulation No. 2, as amended, or Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

5. **Civil and Criminal Liability**

Except as provided in permit conditions 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 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 APCEC Regulation No. 9 (Regulation for the Fee System for Environmental Permits). Failure to promptly remit all required fees shall be grounds for the Director to initiate action to terminate this permit under the provisions of 40 CFR Parts 122.64 and 124.5(d), as adopted in APCEC Regulation No. 6 and the provisions of APCEC Regulation No. 8.

SECTION B – OPERATION AND MAINTENANCE OF POLLUTION CONTROLS

1. Proper Operation and Maintenance

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

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

2. Need to Halt or Reduce not a Defense

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

3. Duty to Mitigate

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

4. Bypass of Treatment Facilities

A. Bypass not exceeding limitation

The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Parts 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; and
   (c) The permittee submitted notices as required by Part III.B.4.b.

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

5. Upset Conditions

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

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

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

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

6. Removed Substances

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

B. Any changes to the permittee's disposal practices described in Part II of the permit 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 insure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated, and maintained to insure the accuracy of the measurements are consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than +/- 10% from true discharge rates throughout the range of expected discharge volumes and shall be installed at the monitoring point of the discharge.

Calculated Flow Measurement

For calculated flow measurements that are performed in accordance with either the permit requirements or a Department 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 Department.

3. Monitoring Procedures

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

4. Penalties for Tampering

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

5. Reporting of Monitoring Results

Monitoring results must be reported on a Discharge Monitoring Report (DMR) form provided by the Department or other form/method approved in writing by the Department (e.g., electronic submittal of DMR once approved). Monitoring results obtained during the previous monitoring period shall be summarized and reported on a DMR form postmarked no later than the 25th day of the month or submitted electronically by 6:00 p.m. of the 25th, following the completed reporting period beginning on the effective date of the permit. When mailing the DMRs, duplicate copies of the forms signed and certified as required by Part III.D.11 and all other reports required by Part III.D, shall be submitted to the Director at the following address:

Enforcement Branch
Water Division
Arkansas Department of Environmental Quality
5301 Northshore Drive
North Little Rock, AR 72118-5317

If permittee uses outside laboratory facilities for sampling and/or analysis, the name and address of the contract laboratory shall be included on the DMR.

6. Additional Monitoring by the Permittee

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

7. Retention of Records

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

8. Record Contents

Records and monitoring information shall include:

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

9. Inspection and Entry

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

A. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
B. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

C. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit, and
D. Sample, inspect, or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.

SECTION D – REPORTING REQUIREMENTS

1. Planned Changes

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

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

2. Anticipated Noncompliance

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

3. Transfers

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

4. Monitoring Reports

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

5. Compliance Schedule

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

6. Twenty-four Hour Report

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

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

B. The following shall be included as information which must be reported within 24 hours:

1. Any unanticipated bypass which exceeds any effluent limitation in the permit;
2. Any upset which exceeds any effluent limitation in the permit and
3. Violation of a maximum daily discharge limitation for any of the pollutants listed by the Director in Part I of the permit to be reported within 24 hours to the Enforcement Section of the Water Division of the ADEQ.

C. The Director may waive the written report on a case-by-case basis if the oral report has been received within 24 hours to the Enforcement Section of the Water Division of the ADEQ.

7. Other Noncompliance

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

8. Changes in Discharge of Toxic Substances for Industrial Dischargers

The permittee shall notify the Director as soon as he/she knows or has reason to believe:

A. That any activity has occurred or will occur which would result in the discharge on a routine or frequent basis of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the "notification levels" described in 40 CFR Part 122.42(a)(1); or
B. That any activity has occurred or will occur which would result in any discharge on a non-routine or infrequent basis of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the "notification levels" described in 40 CFR Part 122.42(a)(2).

9. Duty to Provide Information

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

10. Duty to Reapply

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

11. Signatory Requirements

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

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

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

   (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; or
   (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; or

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

   (a) The chief executive officer of the agency, or
   (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); and
3. The written authorization is submitted to the Director.

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

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

12. Availability of Reports

Except for data determined to be confidential under 40 CFR Part 2 and APCEC Regulation No. 6, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Department of Environmental Quality. As required by the Regulations, the name and address of any permit applicant or permittee, permit applications, permits, and effluent data shall not be considered confidential.

13. Penalties for Falsification of Reports

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

PART IV
DEFINITIONS

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

1. **"Act"** means the Clean Water Act, Public Law 95-217 (33.U.S.C. 1251 et seq.) as amended.
2. **"Administrator"** means the Administrator of the U.S. Environmental Protection Agency.
3. **"APCEC"** means the Arkansas Pollution Control and Ecology Commission.
4. **"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.
5. **"Applicable water quality standards"** means all water quality standards to which a discharge is subject under the federal Clean Water Act and which has been (a) approved or permitted to remain in effect by the Administrator following submission to the Administrator pursuant to Section 303(a) of the Act, or (b) promulgated by the Director pursuant to Section 303(b) or 303(c) of the Act, and standards promulgated under (APCEC) Regulation No. 2, as amended.
6. **"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.
7. **"Bypass"** As defined at 122.41(m).
8. **"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.
9. **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.
10. **Daily Maximum"** discharge limitation means the highest allowable "daily discharge" during the calendar month. The 7-day average for Fecal Coliform Bacteria (FCB) or E-Coli is the geometric mean of the values of all effluent samples collected during the calendar week in colonies per 100 ml.
11. **"Department"** means the Arkansas Department of Environmental Quality (**ADEQ**).
12. **"Director"** means the Director of the Arkansas Department 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. **"E-Coli"** a sample consists of one effluent grab portion collected during a 24-hour period at peak loads. For E-Coli, report the monthly average as a 30-day geometric mean in colonies per 100 ml.
15. **"Fecal Coliform Bacteria (FCB)"**a sample consists of one effluent grab portion collected during a 24-hour period at peak loads. For Fecal Coliform Bacteria (FCB) report the monthly average as a 30-day geometric mean in colonies per 100 ml.
16. **"Grab sample"** means an individual sample collected in less than 15 minutes in conjunction with an instantaneous flow measurement.
17. **"Industrial User**" means a nondomestic discharger, as identified in 40 CFR Part 403, introducing pollutants to a POTW.
18. **"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.
19. **"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.
20. **"Instantaneous Minimum"** an instantaneous minimum value, shall mean that no value measured during the reporting period may fall below the stated value.
21. **"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.
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; or

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

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. **"National Pollutant Discharge Elimination System"** means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements under Sections 307, 402, 318, and 405 of the Clean Water Act.
24. **"POTW"** means a Publicly Owned Treatment Works.
25. **Reduction of CBOD5/BOD5 and TSS in mg/l Formula**:
((Influent – Effluent) / Influent) x 100
26. **"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.
27. **"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.
28. **"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.
29. **"Treatment works"** means any devices and systems used in storage, treatment, recycling, and reclamation of municipal sewage and industrial wastes, of a liquid nature to implement section 201 of the Act, or necessary to recycle reuse water at the most economic cost over the estimated life of the works, including intercepting sewers, sewage collection systems, pumping, power and other equipment, and alterations thereof; elements essential to provide a reliable recycled supply such as standby treatment units and clear well facilities, and any works, including site acquisition of the land that will be an integral part of the treatment process or is used for ultimate disposal of residues resulting from such treatment.
30. **Units of Measure:**
"MGD" shall mean million gallons per day.
"mg/l" shall mean milligrams per liter or parts per million (ppm).

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

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

Final Fact Sheet

This Fact Sheet is for information and justification of the permit limits only. Please note that it is not enforceable. This permitting decision is for renewal of the discharge Permit Number AR0033316 with Arkansas Department of Environmental Quality (ADEQ) Facility Identification Number (AFIN) 35-00149 to discharge to Waters of the State.

1. **PERMITTING AUTHORITY.**

The issuing office is:

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

2. **APPLICANT.**

The applicant's mailing address is:

Pine Bluff Wastewater Utility
Boyd Point Wastewater Treatment Facility
1520 South Ohio Street
Pine Bluff, AR 71601

The facility address is:

Pine Bluff Wastewater Utility
Boyd Point Wastewater Treatment Facility
900 Island Harbor Marina Road
Pine Bluff, AR 71601

3. **PREPARED BY.**

The permit was prepared by:

Guy Lester
Staff Engineer
NPDES Discharge Permits Section
Water Division
(501) 682-0023
E-mail: lester@adeq.state.ar.us

Kimberly A. Fuller, P.E.
Engineer Supervisor
NPDES Discharge Permits Section
Water Division
(501) 682-0643
Email: fuller@adeq.state.ar.us

4. **PERMIT ACTIVITY.**

Previous Permit Effective Date:	9/1/2009
Previous Permit Modification Date:	4/15/2013
Previous Permit Expiration Date:	8/31/2014

The permittee submitted a permit renewal application on 2/3/2014, with additional information received on 4/14/2014 and 5/22/2014. It is proposed that the current discharge permit be reissued for a 5-year term in accordance with regulations promulgated at 40 CFR Part 122.46(a).

DOCUMENT ABBREVIATIONS

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

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

USF&WS - United States Fish and Wildlife Service
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:

Compliance and Enforcement History for this facility can be reviewed by using the following web link:

http://www.adeq.state.ar.us/ftproot/Pub/WebDatabases/PermitsOnline/NPDES/PermitInformation/AR0033316_%20Pine%20Bluff%20%20Enforcement%20Compliance%20Review_20140320.pdf

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. Monitoring frequencies for CBOD5, BOD5, TSS, NH3-N, DO, and FCB have been reduced. See Section 16 below for details.
2. The Monthly Total number of Sanitary Sewer Overflows (SSOs) and the Monthly Total Volume of SSOs must be reported on the Discharge Monitoring Reports.
3. A requirement to monitor the influent for BOD5/CBOD5 and TSS at least once per year has been added to Part II.2.
4. All of the effluent limits have been corrected to reference the nearest tenth to ensure the required accuracy in reporting.
5. Parts II.3 and II.4 have been deleted because the facility does not perform land application.
6. A sludge management condition has been added as Part II.3.
7. Part II.5 has been expanded to clarify the requirements for reporting SSOs.
8. The TRC requirements in part II.8 have been revised. See Section 13 below for details.
9. The Discharge Flow restrictions in Parts II.10.A & B have been corrected to reference total daily flow instead of average daily flow.
10. A stormwater BMP condition has been added as Part II.13.
11. Part IV has been modified. The definitions were placed in alphabetical order. Definitions for “Best Management Practices (BMPs),” “composite sample,” “E-coli,” “weekday,” and “Reduction of BOD5 or CBOD5 and TSS in mg/l Formula” were added. Those definitions were added because permits being issued at this time might contain those requirements. The definitions for “3-hour composite sample,” “6-hour composite sample,” “12-hour composite sample,” and “24-hour composite sample” were removed. Those definitions were removed because permits are no longer issued with those sample types.
12. The outfall location coordinates have been made more precise.

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

The outfall is located at the following coordinates confirmed on Google Earth using WGS84:

Latitude: 34° 16' 32.0" N; Longitude: 91° 57' 58.6" W

The receiving waters named:

the Arkansas River in Segment 3C of the Arkansas River Basin. The receiving stream with USGS Hydrologic Unit Code (H.U.C) of 11110207 and reach # 005 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, ENDANGERED SPECIES, AND ANTI-DEGRADATION CONSIDERATIONS.**

A. **303(d) List:**

The receiving stream is not listed on the 2008 303(d) list. Therefore no permit action is needed.

B. **Endangered Species**:

No comments on the application were received from the USF&WS. The draft permit and Fact Sheet were 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 Antidegradation Policy and all other applicable water quality standards found in APC&EC Regulation No. 2.

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

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

A. Design Flow: HCR (b/g flow <5000 cfs: 14 MGD - b/g flow ≥5000 cfs: 30 MGD)

B. Type of Treatment: two parallel trains of one aerated lagoon and one primary pond in series, two polishing ponds in series, and chlorine disinfection. The two parallel trains combine into the first polishing pond, which runs in series with the second polishing pond, then to disinfection via chlorination (optional).

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 Reg. 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.**

INDUSTRIAL USERS

The permittee receives process wastewater from significant industrial users. Standard Pretreatment Program implementation language is deemed necessary at this time.

A written certification that existing technically based local limits are adequate to prevent pass through, inhibition, or interference is required within six (6) months of the effective date of the permit or; a written notification that a technical evaluation revising the current technically based limits will be submitted within twelve (12) months of the effective date of the permit.

Pretreatment requirements have been added to modify the permittee's Program to be current with the newly revised (10/05) Pretreatment Regulations under 40 CFR 403. Submittal of these modifications are due within twelve (12) of the effective date of the permit.

11. **SEWAGE SLUDGE PRACTICES.**

Sludge is accumulating in the bottom of the treatment ponds. The ponds were measured in 2002. Based on these measurements and the facility not having any permit limit exceedances over the past 5 years, the pond is believed to still have adequate capacity to operate as designed. Therefore, no permitting action is required at this time.

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

The Arkansas Department of Environmental Quality has made a determination to issue a permit for the discharge described in the application. Permit requirements are based on federal regulations (40 CFR Parts 122, 124, and Subchapter N), the National Pretreatment Regulation in 40 CFR 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 permit and the reasons for them or, in the case of notices of intent to deny or terminate, reasons suggesting the decisions as required under 40 CFR Part 124.7.

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

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

Parameter	Water Quality-Based		Technology-Based/BPJ		Previous Permit		Final Permit Limit	
	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
Flow when upstream flow < than 5000 cfs	N/A	14.0 MGD (Daily Max.)	N/A	N/A	N/A	14 MGD (Daily Max.)	N/A	14.0 MGD (Daily Max.)
Flow when upstream flow ≥ 5000 cfs	N/A	30.0 MGD (Daily Max.)	N/A	N/A	N/A	30 MGD (Daily Max.)	N/A	30.0 MGD (Daily Max.)
CBOD5								
(May-Oct)	25.0	37.5	25.0	40.0	25	37.5	25.0	37.5
BOD5								
(Nov-Apr)	30.0	45.0	30.0	45.0	30	45	30.0	45.0
TSS	N/A	N/A	90.0	135.0	90	135	90.0	135.0
NH3-N								
(May-Oct)	15.0	22.5	N/A	N/A	15.0	22.5	15.0	22.5
DO	2.0 (Inst. Min.)		N/A		2.0 (Inst. Min.)		2.0 (Inst. Min.)	
FCB (col/100 ml)								
(Apr-Sept)	200	400	N/A	N/A	200	400	200	400
(Oct-Mar)	1000	2000	N/A	N/A	1000	2000	1000	2000
TRC (14 MGD)	0.122 (Inst. Max.)		N/A		<0.1 (Inst. Max.)		0.1 (Inst. Max.)	
TRC (30 MGD)	0.122 (Inst. Max.)		N/A		<0.1 (Inst. Max.)		0.1 (Inst. Max.)	
TP	N/A	N/A	Report	Report	Report	Report	Report	Report
NO_3+NO_2-N	N/A	N/A	Report	Report	Report	Report	Report	Report
pH	6.0-10.5 s.u.		6.0-10.5 s.u.		6.0-10.5 s.u.		6.0-10.5 s.u.	

A. **Justification for Limitations and Conditions of the permit:**

Parameter	Water Quality or Technology	Justification
Flow (MGD) when upstream flow < 5000 cfs	Water Quality	Modeling Report of HCR with technical approval letter from EPA (dated 4/8/2002 and reviewed on 8/14/2014), 40 CFR 122.44(l), and previous permit
Flow (MGD) when upstream flow ≥ 5000 cfs	Water Quality	Modeling Report of HCR with technical approval letter from EPA (dated 4/8/2002 and reviewed on 8/14/2014), 40 CFR 122.44(l), and previous permit
CBOD5	Water Quality	Modeling Report of HCR with technical approval letter from EPA (dated 4/8/2002 and reviewed on 8/14/2014), 40 CFR 133.102(a), 40 CFR 122.44(l), and previous permit
BOD5	Water Quality	Modeling Report of HCR with technical approval letter from EPA (dated 4/8/2002 and reviewed on 8/14/2014), 40 CFR 133.102(a), 40 CFR 122.44(l), and previous permit
TSS	Technology	40 CFR 133.103(c), letter from EPA (dated 4/21/1986 and reviewed on 8/14/2014), Memo from EPA Region 6: Guidance on Implementing Secondary Treatment Regulations, 40 CFR 122.44 (l), and previous permit
NH3-N	Water Quality	Reg. 2.512, Modeling Report of HCR with technical approval letter from EPA (dated 4/8/2002 and reviewed on 8/14/2014), 40 CFR 122.44(l), and previous permit
DO	Water Quality	Reg. 2.505, Modeling Report of HCR with technical approval letter from EPA (dated 4/8/2002 and reviewed on 8/14/2014), 40 CFR 122.44(l), and previous permit
FCB	Water Quality	Reg. 2.507, 40 CFR 122.44(l) and previous permit
TRC	Water Quality	Reg. 2.409, 40 CFR 122.44(l), and previous permit
TP	Technology	CPP, 40 CFR 122.44(l) and previous permit
NO_3+NO_2-N	Technology	CPP, 40 CFR 122.44(l) and previous permit
pH[1]	Water Quality	Reg. 2.504, 40 CFR 122.44(l) and previous permit

[1] Regulation 2.504 water quality standards states that "As a result of waste discharges, the pH of water in streams or lakes must not fluctuate in excess of 1.0 unit over a period of 24 hours and pH values shall not be below 6.0 or above 9.0". Also, 40 CFR 133.102 (c) allows for the expansion of the pH limit range. In accordance with 40 CFR 133.102(c), an expansion of the pH range may be requested as long as the permittee submits a letter that states: inorganic chemicals are not added to the waste stream as part of the treatment process and contributions from industrial sources do not cause the pH of the effluent to be less than 6.0 s.u. or greater than 9.0 s.u.

The facility verified in a letter dated 5/22/2014 that inorganic chemicals are not added to the waste stream as part of the treatment process, and that contributions from industrial sources do not cause the pH of the effluent to be less than 6.0 s.u. or greater than 9.0 s.u (as the facility does not receive process wastewater from any significant industrial users as defined by 40 CFR Part 403.3(v)). Therefore, 40 CFR 133.102 (c) allows for the expansion of the pH limit range.

A spreadsheet provided by the EPA, based on the procedure outlined in "Technical Guidance on Supplementary Stream Design Conditions for Steady State Modeling" (EPA, 1988), that calculates the resulting pH for a mixture of two flows can be used to model the effects of a discharge on a receiving stream. This facility discharges into the Arkansas River with a 7Q10 of approximately 819 cfs. The referenced spreadsheet was used to model the effects on the Arkansas River with data points provided by the facility from the final effluent and upstream of the discharge. Based on the results from this spreadsheet, the facility's discharge with a pH range of 6.0-10.5 s.u. does not show reasonable potential to cause the instream pH values in the Arkansas River to exceed Water Quality Standards or to vary by over 1.0 unit over a period of 24 hours. The referenced spreadsheet can be found at the following URL:

http://www.adeq.state.ar.us/ftproot/Pub/WebDatabases/PermitsOnline/NPDES/PermitInformation/AR0033316_Alkalinity%20and%20pH%20Results_20140414.pdf

The effluent meets the requirements of Regulation 2.504. Therefore, the previous permit limits of 6.0-10.5 s.u. will be continued in this permit

B. **Anti-backsliding**

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

The permit meets or exceeds the requirements of the previous permit.

C. **Limits Calculations**

1. Mass limits:

Mass limits are not included in this permit as the facility discharges via HCR.

2. 7-Day Average Limits:

The 7-Day Average limits for NH3-N (May through October) as well as CBOD5 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

7-Day Average limit for BOD5 is based on 40 CFR 133.102(a)(2).

The 7-Day Average limits for FCB and O&G are based on Regs. 2.507 and 2.510, respectively.

D. **Ammonia-Nitrogen (NH3-N)**

The water quality effluent limitations for Ammonia are based either on DO-based effluent limits or on toxicity-based standards, whichever are more stringent. The toxicity-based effluent limitations are based on Reg. 2.512 and the CPP.

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

No changes to the 208 Plan are being made at this time.

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

ADEQ 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), Regulation No. 2 (Reg. 2.508) and criteria obtained from the EPA National Recommended Water Quality Criteria, found at the following link:

http://water.epa.gov/scitech/swguidance/standards/criteria/current/index.cfm#cmc

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

The following items were used in calculations:

Upstream flow < 5000 cfs

Parameter	Value	Source
Flow = Q	14 MGD = 21.63 cfs	Permit HCR Limit
7Q10	819 cfs	U.S.G.S.
TSS	8.00 mg/l	CPP
Hardness as CaCo3	81.00 mg/l	CPP
pH	6.63 s.u.	Facility pH sampling report

Upstream flow >= 5000 cfs

Parameter	Value	Source
Flow = Q	30 MGD = 46.35 cfs	Permit HCR Limit
7Q10	5000 cfs	U.S.C.E.
TSS	8.0 mg/l	CPP
Hardness as CaCo3	81.00 mg/l	CPP
pH	6.63 s.u.	Facility pH sampling report

The pollutants in the following tables were reported in the PPS Form. In-stream 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.

1. **Aquatic Toxicity Evaluation (14 MGD)**

a. Acute Criteria Evaluation

Substance	Concentration Reported (C_e) µg/l	C_e x 2.13[1]	Instream Waste Concentration (IWC)	Water Quality Standards (WQS)[2]	Reasonable Potential (Yes/No)
			Acute, µg/l	Acute, µg/l	
Copper	14	30	9.11	38.87	No
Lead	0.68	1.4	0.44	269.04	No
Nickel	7.2	15	4.69	2603.30	No

[1] Statistical ratio used to estimate the 95th percentile using a single effluent concentration or the geometric mean of a dataset.
[2] Water Quality Standards are from Reg. 2.508.

b. Chronic Criteria Evaluation

Substance	Concentration Reported (C_e) µg/l	C_e x 2.13[1]	Instream Waste Concentration (IWC)	Water Quality Standards (WQS)[2]	Reasonable Potential (Yes/No)
			Chronic, µg/l	Chronic, µg/l	
Copper	14	30	2.85	26.41	No
Lead	0.68	1.4	0.14	10.48	No
Nickel	7.2	15	1.47	289.12	No

[1] Statistical ratio used to estimate the 95th percentile using a single effluent concentration or the geometric mean of a dataset.
[2] Water Quality Standards are from Reg. 2.508.

2. **Human Health (Bioaccumulation) Evaluation (14 MGD)**

Substance	Concentration Reported (C_e) µg/l	C_e x 2.13[1]	Instream Waste Concentration (IWC)	EPA Criteria[2]	Reasonable Potential (Yes/No)
Arsenic	0.86	1.8	0.02	1.4[2]	No

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

3. **Aquatic Toxicity Evaluation (30 MGD)**

b. Acute Criteria Evaluation

Substance	Concentration Reported (C_e) µg/l	C_e x 2.13[1]	Instream Waste Concentration (IWC)	Water Quality Standards (WQS)[2]	Reasonable Potential (Yes/No)
			Acute, µg/l	Acute, µg/l	
Copper	14	30	3.99	38.87	No
Lead	0.68	1.4	0.19	269.04	No
Nickel	7.2	15	2.05	2603.3	No

[1] Statistical ratio used to estimate the 95th percentile using a single effluent concentration or the geometric mean of a dataset.
[2] Water Quality Standards are from Reg. 2.508.

c. Chronic Criteria Evaluation

Substance	Concentration Reported (C_e) µg/l	C_e x 2.13[1]	Instream Waste Concentration (IWC)	Water Quality Standards (WQS)[2]	Reasonable Potential (Yes/No)
			Chronic, µg/l	Chronic, µg/l	
Copper	14	30	1.07	26.41	No
Lead	0.68	1.4	0.05	10.48	No
Nickel	7.2	15	0.55	289.12	No

[1] Statistical ratio used to estimate the 95th percentile using a single effluent concentration or the geometric mean of a dataset.
[2] Water Quality Standards are from Reg. 2.508.

4. **Human Health (Bioaccumulation) Evaluation (30 MGD)**

Substance	Concentration Reported (C_e) µg/l	C_e x 2.13[1]	Instream Waste Concentration (IWC)	EPA Criteria[2]	Reasonable Potential (Yes/No)
Arsenic	0.86	1.8	0.01	1.4[2]	No

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

ADEQ has determined from the submitted information that the discharge does not pose the reasonable potential to cause or contribute to an exceedance above a water quality standard. For more information, please refer to the following Reasonable Potential spreadsheets (representing the two possible design flows of 14 MGD and 30 MGD, respectively):

http://www.adeq.state.ar.us/ftproot/Pub/WebDatabases/PermitsOnline/NPDES/PermitInformation/AR0033316_PPS%20%2814%20MGD%29_20140709.pdf

http://www.adeq.state.ar.us/ftproot/Pub/WebDatabases/PermitsOnline/NPDES/PermitInformation/AR0033316_PPS%20%2830%20MGD%29_20140709.pdf

13. **TOTAL RESIDUAL CHLORINE (TRC) REQUIREMENTS.**

EPA considers concentrations of TRC at the edge of the mixing zone higher than 0.011 mg/l to be toxic to aquatic organisms (Chronic Criteria), and Reg. 2.409 prohibits discharges that after mixing cause toxicity to aquatic biota or interfere with normal propagation, growth, and survival of aquatic biota.

A water quality-based TRC limit was calculated to determine the maximum concentration of TRC in the discharge that would ensure that TRC concentrations at the edge of the mixing zone will not exceed 0.011 mg/l.

The highest Critical Dilution (CD) for the two HCR discharge flows is 9% at the 14 MGD discharge flow with the 7Q10 flow in the receiving stream. A water quality-based TRC limit was calculated as follows:

WQ-based TRC limit = 0.011 mg/l ÷ CD%
= 0.011 ÷ 0.09 = 0.122 mg/l

The analysis shows that the toxicity criteria for TRC would not be exceeded at the edge of the mixing zone in the receiving stream (the Arkansas River) if the concentration of TRC in the discharge is not greater than 0.122 mg/l. This value is greater than the current MQL for TRC of 0.033 mg/l and the previous TRC permit limit of <0.1 mg/l.

40 CFR 122.44(l)(1) requires that permit limits in a renewed permit be at least as stringent as those in the previous permit. Therefore, based on the comparison of the water quality-based TRC value calculated above (0.122 mg/l), and the previous permit limit of <0.1 mg/l, the TRC limit in the final permit has been set at 0.1 mg/l.

14. **WHOLE EFFLUENT TOXICITY.**

Section 101(a)(3) of the Clean Water Act states that "...it is the national policy that the discharge of toxic pollutants in toxic amounts be prohibited." In addition, ADEQ is required under 40 CFR Part 122.44(d)(1), adopted by reference in Regulation 6, to include conditions

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

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

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

Requirements for measurement frequency are based on the CPP.

Since 7Q10 is greater 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)) x 100

Qd = Discharge Flow = 14 MGD = 21.63 cfs
7Q10 = 819 cfs
Qb = Background flow = (0.25) x 7Q10 = 205 cfs
CD = (21.63) / (21.63 + 205) x 100 = 9%

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 **4%, 5%, 7%, 9%, and 12%** (See the CPP). The low-flow effluent concentration (critical dilution) is defined as **9**% effluent. The requirement for chronic WET tests is based on the magnitude of the facility's discharge with respect to receiving stream flow. The stipulated test species, *Ceriodaphnia dubia* and the Fathead minnow (*Pimephales promelas*) are representative of organisms indigenous to the geographic area of the facility; the use of these is consistent with the requirements of the State water quality standards. The WET testing frequency has been established to provide data representative of the toxic potential of the facility's discharge, in accordance with the regulations promulgated at 40 CFR Part 122.48.

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

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

Although the facility may discharge above 14 MGD (up to 30 MGD daily max.) when the background flow of the receiving stream is greater than or equal to 5000 cfs, the dilution of the discharge is greater in this discharge condition than during the condition of 7Q10 flow in the receiving stream and 14 MGD facility discharge. Therefore, the more conservative condition of 7Q10 flow in the receiving stream and 14 MGD facility discharge has been used to determine WET testing requirements.

Administrative Records

Permit Number:	AR0033316	AFIN:	35-00149	Outfall Number:	001
Date of Review:	5/8/2015	Reviewer:	Mary Barnett		
Facility Name:	Pine Bluff Wastewater Utility - Boyd Point				
Previous Dilution series:	4, 5, 7, 9, &12	Proposed Dilution Series:	4, 5, 7, 9, & 12		
Previous Critical Dilution:	9	Proposed Critical Dilution:	9		
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		Invertebrate	
TEST DATE	Lethal NOEC	Sub-Lethal NOEC	Lethal NOEC	Sub-Lethal NOEC
3/31/2010	9	9	9	9
6/30/2010	12	12	12	12
9/30/2010	12	12	12	12
6/30/2011	9	9	9	9
12/31/2011	9	9	9	9
6/30/2012	9	9	9	9
12/31/2012	9	9	9	9
6/30/2013	12	12	12	12
6/30/2013	9	9	9	9
12/31/2013	12	12	12	12
6/30/2014	9	9	9	9
9/30/2014	12	12	12	12
12/31/2014	12	12	12	12
3/31/2015	12	12	12	12

REASONABLE POTENTIAL CALCULATIONS

	Vertebrate Lethal	Vertebrate Sub-Lethal	Invertebrate Lethal	Invertebrate Sub-Lethal
Min NOEC Observed	9	9	100	75
TU at Min Observed	11.11	11.11	11.11	11.11
Count	14	14	14	14
Failure Count	0	0	0	0
Mean	9.722	9.722	9.722	9.722
Std. Dev.	1.441	1.441	1.441	1.441
CV	0.1	0.1	0.1	0.1
RPMF	1.1	1.1	1.1	1.1
Reasonable Potential	1.100	1.100	1.100	1.100
100/Critical dilution	11.111	11.111	11.111	11.111
Does Reasonable Potential Exist	No	No	No	No

PERMIT ACTION

P. promelas lethal - monitoring
P. promelas sub-lethal - monitoring
C. dubia lethal - monitoring
C. dubia sub-lethal - monitoring

15. STORMWATER REQUIREMENTS

The federal regulations at 40 CFR 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 CFR 122.26(g) if several conditions can be certified. This facility was issued a "No Exposure" Exclusion under NPDES Tracking number ARR000451. The City of Pine Bluff separate stormwater system is covered under MS4 Permit No. ARR040042.

16. SAMPLE TYPE AND FREQUENCY.

Regulations require permits to establish monitoring requirements to yield data representative of the monitored activity [40 CFR Part 122.48(b)] and to ensure compliance with permit limitations [40 CFR Part 122.44(i)(l)].

The Department has reviewed the past 2 years of analytical data from the facility DMRs. Based on the findings of the review, in accordance with EPA Document 833-B-96-001 "Interim Guidance for Performance-based Reduction of NPDES Permit Monitoring Frequencies", April 1996, the monitoring frequencies for the CBOD5, BOD5, TSS, NH3-N, DO, and FCB have been reduced as noted below. A spreadsheet showing the calculations may be viewed at the following link:

http://www.adeq.state.ar.us/downloads/WebDatabases/PermitsOnline/NPDES/PermitInformation/AR0033316_Monitoring%20Frequency%20Reduction%20Calculations_20150406.pdf

The "6-hr composite" sample type for CBOD5, TSS, and NH3-N, has been changed to "composite". This is because the new definition for "composite sample" in Part IV of the permit allows greater flexibility for the permittee in collecting composite samples for permit parameters while still maintaining the requirement for a sample that is representative of the discharge over a period of time.

Parameter	Previous Permit		Final Permit	
	Frequency of Sample	Sample Type	Frequency of Sample	Sample Type
Flow	once/day	totalizing meter	once/day	totalizing meter
Upstream Flow	once/day	record	once/day	record
CBOD5				
(May-Oct)	five/week	24-hr composite	four/week	composite
BOD5				
(Nov-April)	five/week	24-hr composite	four/week	composite

Parameter	Previous Permit		Final Permit	
	Frequency of Sample	Sample Type	Frequency of Sample	Sample Type
TSS	five/week	24-hr composite	four/week	composite
NH3-N				
(May-Oct)	five/week	24-hr composite	one/week	composite
DO	five/week	grab	two/week	grab
FCB	five/week	grab	one/week	grab
TRC	five/week	grab	five/week	grab
TP	once/month	grab	once/month	grab
NO_3+NO_2-N	once/month	grab	once/month	grab
pH	once/day	grab	once/day	grab
Chronic WET	once/quarter	24-hr composite	once/quarter	24-hr composite

17. **PERMIT COMPLIANCE SCHEDULE.**

A Schedule of Compliance has not been included in this permit.

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. AR0033316 received 2/3/2014.
B. Arkansas Water Quality Management Plan (WQMP).
C. APCEC Regulation No. 2.
D. APCEC Regulation No. 3.
E. APCEC Regulation No. 6 which incorporates by reference certain federal regulations included in Title 40 of the Code of Federal Regulations at Reg. 6.104.
F. 40 CFR Parts 122, 125, 133, and 403.
G. Discharge permit file AR0033316.
H. Discharge Monitoring Reports (DMRs).
I. "2008 Integrated Water Quality Monitoring and Assessment Report", ADEQ.
J. “2008 List of Impaired Waterbodies (303(d) List)”, ADEQ, February 2008
K. "Identification and Classification of Perennial Streams of Arkansas", Arkansas Geological Commission.
L. Continuing Planning Process (CPP).

M. Technical Support Document For Water Quality-based Toxic Control.
N. Modeling Report of HCR with technical approval letter from EPA, dated 4/8/2002.
O. Compliance Review Memo dated 3/20/2014 from Alan Anderson to J.D. Borgeson.
P. Alkalinity and pH testing data dated 4/14/14.
Q. DMR pH Data from Nov 2009-Nov 2014.
R. Letter, dated 4/21/1986, from Myron O. Knudson of the EPA to Michael D. Luers of the Pine Bluff Wastewater Utility.
S. PPS (14 MGD).
T. PPS (30 MGD).
U. EPA National Recommended Water Quality Criteria.
V. E-mail letter from EPA, dated 12/9/2014, declining full review of preliminary draft permit.
W. "Interim Guidance for Performance-based Reduction of NPDES Permit Monitoring Frequencies", EPA Document 833-B-96-001, April 1996.
X. http://www.adeq.state.ar.us/downloads/WebDatabases/PermitsOnline/NPDES/PermitInformation/AR0033316_Monitoring%20Frequency%20Reduction%20Calculations_20150406.pdf

20. **POINT OF CONTACT.**

For additional information, contact:

Guy Lester
Permits Branch, Water Division
Arkansas Department of Environmental Quality
5301 Northshore Drive
North Little Rock, Arkansas 72118-5317
Telephone: (501) 682-0023

RESPONSE TO COMMENTS
FINAL PERMITTING DECISION

Permit No.: AR0033316

Applicant: Pine Bluff Wastewater Utility
Boyd Point Wastewater Treatment Facility

Prepared by: Guy Lester

The following are responses to comments received regarding the draft permit number above and are developed in accordance with regulations promulgated at 40 C.F.R. §124.17, APCEC Regulation No. 8 Administrative Procedures, and A.C.A. §8-4-203 e(2).

Introduction

The above permit was submitted for public comment on 1/30/2015. The public comment period ended on 3/1/2015.

This document contains a summary of the comments that the ADEQ received during the public comment period. A summary of the changes to the NPDES Permit can be found on the last page of this document.

The following people or organizations sent comments to the ADEQ during the public notice. A total of seven (7) comments were raised by one (1) commenter.

Commenter	Number of Comments Raised
Pine Bluff Wastewater Utility (PBWU)	7

Comment 1 Please advise PBWU of the methodology to document the Upstream Flow when the Upstream Flow varies above and below 5,000 cfs within a seven day period causing a shift of flow restriction from 14.0 to 30.0 MGD

Response: Although the discharge flow limits are included in the 7-Day Avg. column of the limit tables in Part IA of the permit, they are specifically noted as Daily Max. limits. Parts II.10.A and B of the permit also explicitly state that the flow limits are Daily Max. limits based on the Upstream Flow of the Arkansas River as determined by the method stated in Part II.9 of the permit. Therefore, determination and documentation of the Upstream Flow is required on a daily basis to determine which discharge flow limit applies for that day.

It is not necessary to take into account the variation in the Upstream Flow over a 7-day period when determining which discharge flow limit applies. Prior to discharge, the Upstream Flow must be obtained from the U.S. Corps of Engineers at Arkansas River Lock and Dam No. 5 by contacting the local Lock Master via telephone or using the U.S. Corp of Engineers website (http://www.swl-wc.usace.army.mil/), in accordance with Part II.9 of the permit. Once the Upstream Flow is determined, the facility may discharge at the appropriate Daily Maximum flow, in accordance with Part I Sections A1 and A2 of the permit. If at any subsequent time during that calendar day the facility determines a new Upstream Flow, as described above, any subsequent discharge must be appropriate for the newly determined Upstream Flow. All discharges must be

properly included on the monthly DMRs. Records shall be kept and available for inspection upon request.

These conditions are unchanged from the previous permit, but the reference to the Upstream Flow has been clarified by addition of an explicit reference to Part II.9 (which states how the Upstream Flow is to be determined).

No change has been made to the permit.

Comment 2 Please provide PBWU with a sample DMR to document overflows and overflow volumes for review.

Response: Copies of the DMR and Sanitary Sewer Overflow (SSO) forms are attached to the copy of the Final Permit.

Comment 3 PBWU requests a review of the effluent concentration records to reduce monitoring frequency.

Response: The Department has reviewed the past 2 years of analytical data from the facility DMRs. Based on the findings of the review, in accordance with EPA Document 833-B-96-001 "Interim Guidance for Performance-based Reduction of NPDES Permit Monitoring Frequencies", April 1996, the monitoring frequencies for the following parameters have been reduced as follows:

Parameter	Original Frequency	Reduced Frequency
Carbonaceous Biochemical Oxygen Demand (CBOD5)	five/week	four/week
Biological Oxygen Demand (BOD5)	five/week	four/week
Total Suspended Solids (TSS)	five/week	four/week
Ammonia Nitrogen (NH3-N)	five/week	once/week
Dissolved Oxygen (DO)	five/week	two/week
Fecal Coliform Bacteria (FCB)	five/week	once/week

A spreadsheet showing the calculations may be viewed at the following link:

http://www.adeq.state.ar.us/downloads/WebDatabases/PermitsOnline/NPDES/PermitInformation/AR0033316_Monitoring%20Frequency%20Reduction%20Calculations_20150406.pdf

The guidance document referenced above requires that the facility discharge not only have no violations of parameter permit limits, but that the average level of the parameters in the discharge be well below the permit limits.

The Monitoring Frequency Reduction condition in Part II.4 of the draft permit has been deleted and replaced with a condition that gives the requirements to remain eligible for the reductions in monitoring frequency. The facility must remain in compliance with the terms limitations and requirements of the permit. If the facility is found to out of compliance with the limitations and/or requirements of

the permit, (including, but not limited to: exceedance of effluent limitations of the parameters for which reductions have been granted or failure to submit DMRs), or is subject to a new formal enforcement action, the permit may be reopened to increase the monitoring frequencies of the parameters that have been reduced, in accordance with Part II.6 of the permit. This is a one-time reduction in monitoring frequencies. The facility is not eligible for any further monitoring frequency reductions.

Comment 4 The draft permit contains a new TRC limit based on the reduced MQL for the TRC test method of 0.033 mg/l. PBWU does not have dechlorination equipment, nor test equipment that can meet this MQL. PBWU requests a schedule to incorporate operational changes to demonstrate compliance with the new limit and MQL. PBWU also requests that the current TRC limit of <0.1 mg/l be maintained through the renewed permit cycle.

Response: The analysis of TRC must be performed by one of the approved methods in 40 CFR Part 136, and with the required Minimum Quantification Level (MQL) of 33 µg/l (0.033 mg/l), as specified in EPA guidance document "Region 6 Development of Minimum Quantification Levels", October 30, 2007. These requirements are not permit limits, so a schedule of compliance is not appropriate. The permittee has the option of using the services of a laboratory certified by the State of Arkansas to perform the TRC analysis if the facility does not have analytical equipment that can meet the required MQL.

The Department has performed a complete review of the TRC limitations and requirements in the permit. A water quality-based analysis of TRC in the discharge was performed, taking into account the Hydrographic Control Release (HCR) flows from the facility, the corresponding background flows of the Arkansas River, and the TRC toxicity criterion from "Quality Criteria for Water", EPA Document 440/5-86-001, 1986 (Gold Book). The highest Critical Dilution (CD) for the two HCR discharge flows is 9% at the 14 MGD discharge flow with the 7Q10 flow in the receiving stream. A water quality-based TRC limit was calculated as follows:

$$\text{WQ-based TRC limit} = 0.011 \text{ mg/l} \div \text{CD\%}$$
$$= 0.011 \div 0.09 = 0.122 \text{ mg/l}$$

The analysis shows that the toxicity criteria for TRC would not be exceeded at the edge of the mixing zone in the receiving stream (the Arkansas River) if the concentration of TRC in the discharge is not greater than 0.122 mg/l. This value is greater than the current MQL for TRC of 0.033 mg/l and the previous TRC permit limit of <0.1 mg/l.

40 CFR 122.44(l)(1) requires that permit limits in a renewed permit be at least as stringent as those in the previous permit. Therefore, based on the comparison of the water quality-based TRC value calculated above (0.122 mg/l), and the previous permit limit of <0.1 mg/l, the TRC limit in the final permit has been set at 0.1 mg/l. Therefore, a Schedule of Compliance is not necessary, based on Reg. 2.104.

Comment 5 Please advise PBWU of your requirements to conduct a Site Specific Chlorine Demand Study to calculate site-specific water quality based effluent limits (WQBELs) for the Boyd Point Wastewater Treatment Plant effluent to support or justify a less stringent effluent limitation of acute concentrations in the mixing zone for total residual chlorine (TRC).

Response: The Department has performed a complete review of the TRC limitations and requirements in the permit and has determined that the TRC limit in the previous permit will be retained in the final permit (see Response to Comment 4 above for details). Therefore, a site-specific study to determine TRC concentrations in the receiving stream at the outfall location is not necessary.

The TRC limit in the final permit has been changed to 0.1 mg/l.

Comment 6 PBWU has successfully completed a Whole Effluent Toxicity Testing series. Condition 6 of the WET Testing allows for monitoring frequency reduction upon successful completion of the first four consecutive quarters. The WET Testing cost is approximately $1,400 per test cycle. To reinstate quarterly frequency for WET Testing for the first four consecutive quarters of the permit, once effective, seems arduous based upon the excellent track record of the facility. PBWU requests consideration to continue WET Testing in accordance with the frequency reduction currently in effect from the existing permit.

Response: The previous WET testing frequency reduction cannot be continued at this time. According to Part II.12.6.c "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". The facility is currently operating under an administratively continued permit that expired on August 31, 2014 and are therefore not eligible for a continuation of a previous WET testing frequency reduction.

However, since the permit is being held up by no fault of the permittee, the following language has been added to the permit in Part II.12.6.a:

"The permittee may apply for a testing frequency reduction upon the successful completion of the first four consecutive quarters of testing (in accordance with Item 1.a.) after the expiration date of the previous permit, for one or both test species, provided that all of the following conditions are met:

i. The permittee tested quarterly upon the expiration date of that permit;
ii. The issuance of the renewed permit was not delayed by any fault of the permittee; and
iii. No lethal or sub-lethal effects are demonstrated at or below the critical dilution for the first four consecutive quarters of testing after the expiration date of the previous permit.

If any of the above conditions are not met, the permittee may apply for a testing frequency reduction upon the successful completion of the first four consecutive quarters of testing (in accordance with Item 1.a.) after the renewal permit is effective, for one or both test species."

Comment 7 The 7Q10 of the Arkansas River is 819 cfs. The second paragraph (on page 14 of the Fact Sheet) states that the 7Q10 requirement that triggers WET Testing is less than 100 cfs. This statement appears incorrect. Since the 7Q10 of the Arkansas River is greater than 100 cfs, is Chronic WET testing still required.

Response: The referenced sentence contains a typographical error. The sentence should read:

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

Part III of ADEQ Discharge Permits – Toxic Control Implementation Procedure from Appendix D of the CPP states: "Generally, all major facilities are subject to whole effluent toxicity testing (biomonitoring)." Therefore, as a major municipal facility, WET testing is required.

Part III.A states: "If facility discharges to large stream (7Q10>100CFS) and background flow to effluent flow is greater than 100:1 (7Q10:Qd >100), Acute Biomonitoring is required. In all other cases, chronic testing is required." Since the ratio of background flow to effluent flow for the facility is less than 100:1, Chronic WET Testing is the correct method.

The typographical error in the Fact Sheet has been corrected. No change has been made to the permit.

Summary of Changes to the permit				
Part	Draft Permit	Final Permit	Reason	Comment
II.10.A & B	same conditions as previous permit	added explicit reference to Part II.9 to clarify determination of Upstream Flow measurement	clarification	1
IA	Monitoring Frequencies for CBOD5, BOD5, and TSS = five/week	Monitoring Frequencies for CBOD5, BOD5, and TSS = four/week	Performance-based reduction EPA Guidelines	3
IA	Monitoring Frequencies for NH3-N and FCB = five/week	Monitoring Frequencies for NH3-N and FCB = once/week	Performance-based reduction EPA Guidelines	3
IA	Monitoring Frequencies for DO = five/week	Monitoring Frequencies for DO = two/week	Performance-based reduction EPA Guidelines	3
II.4	Condition allowing for request of reduction in monitoring frequencies	Condition with requirements for maintaining reduction in monitoring frequencies	Monitoring frequencies already reduced in final permit	3
IA	TRC limit = <0.033 mg/l	TRC limit = 0.1 mg/l	WQ-based TRC limit analysis and anti-backsliding	4

II.12.6.a	Standard frequency reduction request condition.	Allowance for use of WET testing results since the expiration date of the previous permit to meet condition for WET testing frequency reduction	4 quarters of WET testing results provides sufficient data to determine frequency reduction	6
Sec. 14 of Fact Sheet	"7Q10 is less than 100 cfs"	"7Q10 is greater than 100 cfs"	Typographical error	7