ADEQ

A R K A N S A S
Department of Environmental Quality

MAY 6 2016

CERTIFIED MAIL: RETURN RECEIPT REQUESTED (91 7199 9991 7030 4937 3875)

Mr. David Moak, Plant Manager
Helena Industries, Inc.
P.O. Box 2336
West Helena, AR 72390

RE: Discharge Permit Number AR0022756 – AFIN 54-00009

Dear Mr. Moak:

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

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

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

Should you have any questions concerning any part of the draft permit, please contact Guy Lester at (501) 682-0023.

Sincerely,

Caleb J. Osborne
Associate Director, Office of Water Quality

CJO:gl

Enclosure

PUBLIC NOTICE OF DRAFT DISCHARGE PERMIT
PERMIT NUMBER AR0022756, AFIN 54-00009

This is to give notice that the Arkansas Department of Environmental Quality (ADEQ), Office of Water Quality, 5301 Northshore Drive, North Little Rock, Arkansas 72118-5317 at telephone number (501) 682-0623, proposes a draft renewal of the permit number AR0022756 for which an application was received on October 31, 2014, with additional information received on December 5, 2014 and February 9, 2015, for the following applicant under the National Pollutant Discharge Elimination System (NPDES) and the Arkansas Water and Air Pollution Control Act.

Applicant: Helena Industries, Inc., 101 Martin Luther King Drive, West Helena, AR 72390. Location: approximately 1 mile west of downtown West Helena and SE intersection of Highway 49B and Highway 49; Latitude: 34° 33' 2.96" N; Longitude: 90° 39' 18.94" W in Phillips County, Arkansas. The discharge of contaminated stormwater runoff is into unnamed drainage ditches, thence to Crooked Creek, thence to Lick Creek, thence to Big Creek, thence to the White River in Segment 4A of the White River Basin.

ADEQ's contact person for submitting written comments on the draft permit, requesting information regarding the draft permit, or obtaining a copy of the permit and the Statement of Basis is Guy Lester, at the above address and telephone number or by email at Water-Draft-Permit-Comment@adeq.state.ar.us. For those with Internet access, a copy of the proposed draft permit as well as the publication date may be found on the ADEQ's website at: http://www.adeq.state.ar.us/water/branch_permits/individual_permits/pn_permits/pnpermits.asp.

The comment period for the draft permit shall end at 4:30 P.M. (Central Time) on the 30th day after the publication date. If the last day of the comment period is a Saturday, Sunday, or legal holiday, the public comment period shall expire on the next day that is not a Saturday, Sunday, or legal holiday. For information regarding the actual publication date along with the actual date and time the comment period will end, please contact Guy Lester at the above address and telephone number or by email at Water-Draft-Permit-Comment@adeq.state.ar.us. Public notice, comments, and hearings will be conducted in accordance with Regulation 6.104(A)(5) [40 CFR Parts 124.10 through 124.12 by reference] and Regulation 8.207 through 8.210 (Administrative Procedures). All persons, including the permittee, who wish to comment on ADEQ's draft permitting decision must submit written comments to ADEQ, along with their name and mailing address. A Public Hearing will be held when ADEQ finds a significant degree of public interest. After the public comment period, ADEQ will issue a final permitting decision. ADEQ will notify the applicant and each person who has submitted written comments or request notice of the final permitting decision. Any interested person who has submitted comments may appeal a final decision by ADEQ in accordance with the APCEC Regulation No. 8.603.

DRAFT

Statement of Basis

This Statement of Basis is for information and justification of the permit limits only. Please note that it is not enforceable. This draft permitting decision is for renewal of the discharge Permit Number AR0022756 with Arkansas Department of Environmental Quality (ADEQ) Facility Identification Number (AFIN) 54-00009 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:

Helena Industries, Inc.
P.O. Box 2336
West Helena, AR 72390

The facility address is:

Helena Industries, Inc.
101 Martin Luther King Drive
West Helena, AR 72390

3. **PREPARED BY.**

The permit was prepared by:

Guy Lester
Staff Engineer
Permits Branch
Office of Water Quality
(501) 682-0023
Email: lester@adeq.state.ar.us

John Bailey, P.E.
Manager
Permits Branch
Office of Water Quality
(501) 682-0629
Email: bailey@adeq.state.ar.us

4. **PERMIT ACTIVITY.**

Previous Permit Effective Date:	May 1, 2010
Previous Permit Expiration Date:	April 30, 2015

The permittee submitted a permit renewal application on October 31, 2014, and additional information was received on December 5, 2014 and February 9, 2015. 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
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/AR0022756_Compliance%20Review_20141112.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. All of the effluent limits have been corrected to reference the nearest tenth to ensure the required accuracy in reporting.
2. Monitoring and reporting of Zinc has been deleted from the permit. See Section 13.E below for details.
3. The Schedule of Compliance in Part IB has been deleted from the permit.
4. The Stormwater Pollution Prevention Plan requirements in Part II.6 have been deleted from the permit because the facility is covered under Industrial General Stormwater Permit ARR000820.
5. The reach code for the receiving stream has been corrected in Section 6 of the statement of Basis based on data from USGS StreamStats.

6. RECEIVING STREAM SEGMENT AND DISCHARGE LOCATION.

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

Latitude: 34° 33’ 12.2” N; Longitude: 90° 39’ 20.1” W

The receiving waters named:

unnamed drainage ditches, thence to Crooked Creek, thence to Lick Creek, thence to Big Creek, thence to the White River in Segment 4A of the White River Basin. The receiving stream with USGS Hydrologic Unit Code (H.U.C) of 08020304 and 6-digit Reach #000240 (from the USGS National Hydrography Dataset Medium Resolution Flowline) is a Water of the State classified for secondary contact recreation, raw water source for domestic (public and private), industrial, and agricultural water supplies, propagation of desirable species of fish and other aquatic life, and other compatible uses.

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 Statement of Basis will be sent to the USF&WS for their review.

C. **Anti-Degradation**:

The limitations and requirements set forth in this permit for discharge into waters of the State are consistent with the 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. Average Flow: variable

B. Type of Treatment: collection of stormwater in a concrete sump for discharge without treatment

C. Discharge Description: contaminated stormwater runoff

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

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

9. **ACTIVITY.**

Under the Standard Industrial Classification (SIC) code of 2879 or North American Industry Classification System (NAICS) code of 325320, the applicant's activities are the operation of agriculture chemical formulator.

10. **SOLIDS PRACTICES.**

No solids disposal is authorized under this permit.

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

The Arkansas Department of Environmental Quality has determined to issue a draft permit for the discharge described in the application. Permit requirements are based on federal regulations (40 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 draft permit and the reasons for them or, in the case of notices of intent to deny or terminate, reasons suggesting the decisions as required under 40 CFR Part 124.7.

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

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

Parameter	Water Quality-Based		Technology-Based		Previous Permit		Draft Permit	
	Monthly Avg. mg/l	Daily Max. mg/l	Monthly Avg. mg/l	Daily Max. mg/l	Monthly Avg. mg/l	Daily Max. mg/l	Monthly Avg. mg/l	Daily Max. mg/l
COD	N/A	N/A	50.0	75.0	50	75	50.0	75.0
O&G	10.0	15.0	N/A	N/A	10	15	10.0	15.0
pH	6.0-9.0 s.u.		N/A		6.0-9.0 s.u.		6.0-9.0 s.u.	

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

Parameter	Water Quality or Technology	Justification
COD	Technology	40 CFR 122.44(l), and previous permit
O&G	Water Quality	Reg. 2.510, CWA 402(o), and previous permit
pH	Water Quality	Reg. 2.504, CWA 402(o), and previous permit

B. **Anti-backsliding**

The draft permit is consistent with the requirements to meet Anti-backsliding provisions of the Clean Water Act (CWA), Section 402(o) [40 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 CWA 402(o)(2), CWA 303(d)(4), or 40 CFR 122.44 (l)(2)(i).

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

C. **Limits Calculations**

1. Mass limits:

   No mass limits are included in this permit due to variable nature of discharge flows, in accordance with 40 CFR 122.45(f)(iii).

2. Daily Maximum Limits:

   The daily maximum limit for COD is based on Section 5.4.2 of the Technical Support Document for Water Quality-Based Toxics Control.

   Daily Maximum limit = Monthly average limit x 1.5

   The daily maximum limit for O&G is based on Reg. 2.510.

D. **Applicable Effluent Limitations Guidelines**

Discharges from facilities of this type are covered by Federal effluent limitations guidelines promulgated under 40 CFR Part 455 – Pesticide Chemicals, Subpart C – Pesticide Chemicals Formulating and Packaging Subcategory. 40 CFR 455.44(a) specifies that the discharge of process wastewater to navigable waters is prohibited.

E. **Toxic Pollutants**

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 "Quality Criteria for Water, 1986 (Gold Book)".

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:

Parameter	Value	Source
Discharge Flow = Q	0.248 MGD = 0.383 cfs	estimated flow calculated by permittee after a 0.5 inch rainfall event
Background Flow	2.225 cfs	Stream flow calculated by permittee after a 0.5 inch rainfall event.
LTA Background Flow	6.7 cfs	Estimated @ 3 x Background Flow (Technical Support Document For Water Quality-based Toxic Control)
TSS	8.0 mg/l	CPP (Ecoregion value)
Hardness as CaCo3	81.0 mg/l	CPP (Ecoregion value)
pH	7.0 s.u.	Neutral

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

http://www.adeq.state.ar.us/ftproot/Pub/WebDatabases/PermitsOnline/NPDES/PermitInformation/AR0022756_RP%20Calculation_20150206.pdf

1. **Aquatic Toxicity Evaluation**

a. Acute Criteria Evaluation

Pollutant	Concentration Reported (C_e) µg/l	C_e x 2.13[1]	Instream Waste Concentration (IWC)	Criteria[2]	Reasonable Potential (Yes/No)
			Acute, µg/l	Acute, µg/l	
Copper	12[3]	25.6	8.76	38.87	No
Zinc	850[4]	-	291.47	319.04	No

[1] Statistical ratio used to estimate the 95th percentile using a single effluent concentration or the geometric mean of a limited dataset (<20 data points).
[2] Criteria are from Reg. 2.508 unless otherwise specified.
[3] One data point from EPA Form 2F.
[4] Maximum of 26 data points from DMRs (May 2012 – December 2014). One outlying data point was removed from consideration. See NOTE at the end of this section.

b. Chronic Criteria Evaluation

Pollutant	Concentration Reported (C_e) µg/l	C_e x 2.13[1]	Instream Waste Concentration (IWC)	Criteria[2]	Reasonable Potential (Yes/No)
			Chronic, µg/l	Chronic, µg/l	
Copper	12[3]	25.6	5.23	26.41	No
Zinc	850[4]	-	173.80	291.33	No

[1] Statistical ratio used to estimate the 95th percentile using a single effluent concentration or the geometric mean of a limited dataset (<20 data points).
[2] Criteria are from Reg. 2.508 unless otherwise specified.
[3] One data point from EPA Form 2F.
[4] Maximum of 26 data points from DMRs (May 2012 – December 2014). One outlying data point was removed from consideration. See NOTE at the end of this section.

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

Pollutant	Concentration Reported (C_e) µg/l	C_e x 2.13[1]	Instream Waste Concentration (IWC)	Criteria[2]	Reasonable Potential (Yes/No)
Copper	12[3]	25.6	1.39	13,000	No
Manganese	470[3]	1001	147.2	1,000	No
Zinc	850[4]	-	46.41	260,000	No

[1] Statistical ratio used to estimate the 95th percentile using a single effluent concentration or the geometric mean of a limited dataset (<20 data points).

[2] Adapted from "National Recommended Water Quality Criteria: 2002 – Human Health Criteria Calculation Matrix", EPA. The respective WQC from the noted reference are Consumption of Organism Only values. The values from the reference are for a lifetime risk factor of 10^{-6}. These values have been multiplied by 10 to correspond to human health criteria lifetime risk factor of 10^{-5} as stated in Reg. 2.508.

[3] One data point from EPA Form 2F.

[4] Maximum of 26 data points from DMRs (May 2012 – December 2014). One outlying data point was removed from consideration. See NOTE at the end of this section.

ADEQ has determined from the submitted information that the discharge does not pose the reasonable potential (RP) to cause or contribute to an exceedance above a water quality standard.

NOTE: The Zinc DMR data was reviewed for possible statistical outliers using the Percentile and Outlier Calculations spreadsheet. One data point (from February 2013) was found to be an outlier, and was not included in the data used in the RP analysis. In addition, the facility conducted rehabilitation of the stormwater drainage system during 2014. Residuals in the stormwater conveyances were removed, and sections of the conveyances were either lined or replaced. This resulted in a reduction of toxicity, as determined by WET testing, and a reduction in the concentration of Zinc in the discharge, as shown in the monthly DMRs. As noted in Section 11.E.1 above, the discharge does not show RP for Zinc. Even without a limitation for Zinc, the permit is protective of aquatic life because Acute Whole Effluent Toxicity limits are included.

12. **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....." To ensure that the CWA's prohibitions for toxics are met, EPA has issued a "Policy for the Development of Water Quality-Based Permit Limitations for Toxic Pollutants (49 FR 9016-9019, 3/9/84)." In support of the national policy, Region 6 adopted the "Policy for Post Third Round NPDES Permitting" and the "Post Third Round NPDES Permit Implementation Strategy" on October 1, 1992. In addition, 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.

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

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

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

TOXICITY TESTS	**FREQUENCY**
48 hour Acute WET	once/2 months

For facilities with a continuous discharge of process wastewater, Chronic WET testing would be included in the permit. However, since the discharge is stormwater only, and is therefore intermittent, Acute WET testing requirements are more appropriate and have been included in the permit. This discretion in the setting of WET testing conditions is in accordance with the recommendations in Section 3.11 of “National Whole Effluent Toxicity (WET) Implementation Guidance Under the NPDES Program – Draft”, EPA, November 2004 (EPA 832-B-04-003)

The calculations for dilution used for the acute WET testing are as follows:

Critical Dilution (CD) = (Qd / (Qd + Qb)) x 100

Qd = Facility’s flow estimate calculated by permittee after a 0.5 inch rainfall event (0.248 cfs)
7Q10 = Receiving stream flow calculated by permittee after a 0.5 inch rainfall event (2.225 cfs)
Qb = Background flow = 0.1 x (0.67) x 7Q10 = 0.149 cfs
CD = ((0.248) / (0.248 + 0.149)) x 100 = 62%

Toxicity tests shall be performed in accordance with protocols described in "Methods for Measuring the Acute Toxicity of Effluent to Freshwater and Marine Organisms", EPA/600/4-90/027. 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

26%, 35%, 47%, 62%, and 83% (See the CPP). The low-flow effluent concentration (critical dilution) is defined as 62% effluent. The requirement for acute WET tests is based on the magnitude of the facility's discharge with respect to receiving stream flow. The stipulated test species *Daphnia pulex* 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-02-012, 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 and/or Toxicity Reduction Evaluation (TRE) 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 APC&EC 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).

Administrative Records

Permit Number:	AR0022756	AFIN:	54-00009	Outfall Number:	001
Date of Review:	2/9/2016	Reviewer:	M. Barnett		
Facility Name:	Helena Industries, Inc.				
Previous Dilution series:	26, 35, 47, 62, 83	Proposed Dilution Series:	26, 35, 47, 62, 83		
Previous Critical Dilution:	62	Proposed Critical Dilution:	62		
Previous TRE activities:	TRE began May 2010, TRE final report received September 2012.				
	Toxicity study continues. Stormwater Corrective Action Plan dated July 28, 2014.				
Frequency recommendation by species					
Pimephales promelas (Fathead minnow):		once per two months			
Daphnia pulex (water flea):		once per two months			

TEST DATA SUMMARY

	Vertebrate		Invertebrate	
TEST DATE	Lethal		Lethal	
	NOEC		NOEC	
Mar-11	**0**		**0**	Lab A
Jun-11	**0**		**0**	Lab A
Sep-11	**0**		**0**	Lab A
Dec-11	**25**		**25**	Lab A
Mar-12	**0**		**26**	Lab A
Apr-12	**0**		**26**	Lab A
Jun-12	**26**		**26**	Lab A
Aug-12	**0**		**0**	Lab A
Oct-12	82		**47**	Lab A
Dec-12	**0**		**0**	Lab A
Feb-13	**0**		**0**	Lab A
Jun-13	82		**35**	Lab A
Aug-13	**26**		**0**	Lab A
Oct-13	**26**		**0**	Lab A
Dec-13	**35**		**0**	Lab A
Feb-14	**35**		**0**	Lab A
Apr-14	62		82	Lab A
Jun-14	**26**		**35**	Lab A
Jun-14	83		62	Lab B
Aug-14	**47**		**0**	Lab A
Oct-14	83		62	Lab B
Nov-14	62		**0**	Lab C
Nov-14	83		83	Lab B
Nov-14	**35**		83	Lab A
Dec-14	83		83	Lab B
Dec-14	83		**47**	Lab A
Dec-14	83		83	Lab C
Dec-14	**47**		83	Lab A
Dec-14	83		**0**	
Feb-15	83		83	Lab B
Mar-15	83		83	Lab B
Mar-15	**47**		**0**	Lab A
Apr-15	83		**47**	Lab B
Apr-15	62		**0**	Lab A
Apr-15	83		83	Lab B
May-15	83		83	Lab B
May-15	83		83	Lab B

Aug-15	83		83	Lab B	
Oct-15	83		83	Lab B	
Failures are noted in BOLD					
REASONABLE POTENTIAL CALCULATIONS					
	Vertebrate Lethal		**Invertebrate Lethal**		
Min NOEC Observed	25		25		
TU at Min Observed	4.00		4.00		
Count	39		39		
Failure Count	19		24		
Mean	2.351		2.732		
Std. Dev.	1.238		1.291		
CV	0.5		0.5		
RPMF	1.3		1.3		
Reasonable Potential	3.224		3.224		
100/Critical dilution	1.613		1.613		
Does Reasonable Potential Exist	Yes		Yes		
PERMIT ACTION					
P. promelas lethal - Limit 62 %					
D. pulex lethal - Limit 62 %					

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

Reasonable potential exists; permit will include Limits of 62% effluent for both organisms. A compliance schedule was included in the previous permit and therefore will not be included in this renewal.

The facility conducted a TRE from May 2010 to September 2012. The TRE final report states: “Although the study eliminated number of classes of toxicants from consideration, TIE testing, source evaluations and process chemical evaluations did not identify the cause or the source of toxicity.” The report noted two main difficulties “1. The class of toxicants (surfactants) indicated by TIE testing is a notoriously difficult group of compounds to identify or quantify analytically, and 2. Drought conditions during 2011 and 2012 limited the number of wet weather events that could be sampled.”

The TRE final report also noted: “TIE testing of samples collected during the early part of the study confirmed the organophosphate pesticide tetrachlorvinphos (TCVP) as accounting for the majority of the toxicity in the outfall sample (See Quarterly Activities reports for 4th Quarter, 2010 and 1st Quarter 2011.) Testing of samples collected during subsequent events confirmed that TCVP was no longer present in toxic amounts and that most if not all toxicity was due to other causes (See Quarterly Activities report for 2nd Quarter, 2010).”

Representatives from Helena Industries Inc. and Department have met several times during 2013, 2014, and 2015 to discuss continued work to achieving lethal WET limits.

An April 5, 3013 summary of work conducted noted: "Additional evaluation of the site by plant personnel, HII technical experts and consultants lead to a reevaluation of the potential role of TPTH. Physical properties of TPTH (e.g. it is neither strongly hydrophobic or hydrophilic) present special analytical challenges and unusual patterns of transport into storm water and confounding results in the TIE process. Accordingly, early attempts to measure TPTH concentrations in toxic samples might have greatly underestimated TPTH concentrations and its role in toxicity. The physical properties of TPTH also provide an explanation for the TIE results that indicated a surfactant-like toxicant."

The "summary of work" noted the following actions had been taken to enhance primary containment of TPTH and reduce the toxicity:

a) Two adjacent areas of the facility were combined with the existing TPTH process area to form a dedicated partitioned shipping/receiving/processing point for TPTH.
b) The existing roofs were replaced on the newly combined areas.
c) New point to point dust collection systems were purchased and were installed inside the process area to better capture and contain nuisance dust. These replaced traditional external dust collectors with roof ventilation.
d) A transition room was purchased and installed where employees can enter one end of the room in clean work uniforms, dress in Tyvek®* suits, and exit through the decontamination room into the process area. After working in the process area, the employees exit the process area into the decontamination room where they discard their Tyvek suits (which are bagged and destroyed), put on disposable shoe covers and exit into the clean room. In the clean room, the disposable shoe covers are bagged and destroyed. … the above procedures are designed solely to minimize the likelihood of employees tracking TPTH from the processing area.
e) The floor level was raised in processing area by approximately 6" to ensure that no rain water would enter this area during heavy rain events.
f) A totally enclosed, dedicated, receiving receiving/shipping dock was constructed to handle inbound/outbound shipments of TPTH.
g) One forklift was dedicated to the receiving/shipping of TPTH and a second forklift to the process of TPTH. Neither forklift will leave the dedicated TPTH area.

The "summary of work" also included the following areas to be considered under 'abatement' regarding secondary containment including, but not be limited to:

- Chemical decomposition of the molecule though reaction with common chemicals (bleach, caustic, etc.)
- Potential decomposition products
- Sequestering/partitioning the molecule in a surfactant enabling removal from surfaces
- Bioremediation
- Photo-degradation
- Enzyme reactions

A January 21, 2014 Attachment 1 Addendum to Aquatic Toxicity Evaluation Status Report documented test results related to secondary containment and clean up. It also evaluated potential additional solutions to mitigate toxicity from triphenyltin hydroxide (TPTH) and tetrachlorvinphos (TCVP, Rabon®).

An April 22, 2014 Aquatic Toxicity Evaluation Update Report noted:

- The untreated sample was toxic to both test organisms, but less so to *D. pulex*.
- Accordingly, the contribution of arsenic to the total toxicity in the untreated effluent was negligible.
- TPTH is not a significant toxicity factor in this sample.
- TCVP is a significant (30%) source of toxicity.
- The majority of the toxicity (70%) apparently is not related to TPTH or TCVP.
- GAC treatment could in theory produce a non-toxic discharge since *D. pulex* is the test organism specified in the permit.
- There appears to be a reduction in the amount and toxicity of TPTH at the outfall, which is likely a result of recent maintenance activities and BMPs.
- TCVP is still present in sufficient amounts in the outfall effluent to cause toxicity, so efforts should continue to determine the source of the TCVP.
- GAC treatment is a promising technology, and is being evaluated along with other options to determine if it or other methods are feasible on a large scale.

An April 1, 2015 Aquatic Toxicity Progress Report noted:

- Washing pipes – April 2014
  - Washing did remove a variety of compounds
- Video pipes to evaluate what needed repair or replacement
- Replace Pipes
  - August 2014 - All corrugated pipes in the yard
  - August 2014 - Long run of black iron pipe
  - October 2014 - Run of corrugated pipe located between buildings
  - January 2015– pipes in I1, J1, & K1 areas
- Cured-in-place lining of pipes
  - October 2014 - All concrete pipes
  - October 2014 - One short length of corrugate pipe under a road
- A series of samples conducted between improvement activities
- The substantial decline in toxicity in the various outfall samples since that time indicates the storm drainage system cleaning and pipe relining/replacement have helped to mitigate, remove or otherwise isolate toxicants that have sometimes accounted for the majority of toxicity at Outfall 001 and other source areas sampled.

A June 25, 2015 Aquatic Toxicity Progress Report noted:

- Based on the results of the numerous sampling events and accumulated knowledge, the most recent results indicate the toxicity at Outfall 001 has been reduced to meet Permit WET limits. Helena believes that the toxicity has been mitigated, so going forward the WET test limits will be monitored and reported in accordance with the DMR and Permit requirements as well as the U.S. EPA acute static renewal test method U.S. EPA-821-R-02-012.

An October 23, 2015 letter from ADEQ to Brian Mulhearn noted:

> As per the information provided in the letter and a September 30, 2015 e-mail, Bio Aquatic has been using synthetic dilution water of the approximate hardness, alkalinity, and pH of the downstream Mississippi River USGS gauge station. The September 30, 2015 e-mail also provided location and water quality data of downstream waters. Based on this information, our phone conversation, and internal discussion, the Crooked Creek sampling station should be used to represent downstream waters.
>
> Future WET tests conducted by Bio Aquatic should be conducted using synthetic dilution water of the approximate hardness, alkalinity, and pH of Crooked Creek. The Department agrees with a Crooked Creek follow up sample in six months.
> *Note: Bio Aquatic is noted above in the table as "Lab B."*

The facility in cooperation with ADEQ Enforcement is currently in the process of developing a Stormwater Corrective Action Plan as part of a developing Consent Administrative Order.

Due to the efforts noted above a reduction in the magnitude of toxicity has been noted.

13. STORMWATER REQUIREMENTS

The federal regulations at 40 CFR 122.26(b)(14) require certain industrial sectors 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. This facility was issued stormwater permit coverage under NPDES Tracking number ARR000820.

14. 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)].

Requirements for sample type and sampling frequency have been based on the current discharge permit.

Parameter	Previous Permit		Draft Permit	
	Frequency of Sample	Sample Type	Frequency of Sample	Sample Type
Flow	once/day	instantaneous	once/day[1]	instantaneous
COD	once/month	grab	once/month	grab
O&G	once/quarter	grab	once/quarter	grab
pH	once/quarter	grab	once/quarter	grab
Acute WET	once/2 months	24-hr composite	once/2 months	24-hr composite

[1] When discharging. Monitoring shall be performed once per calendar day if the duration of the discharge is greater than 24 hours.

15. **PERMIT COMPLIANCE.**

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

16. **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.

17. **SOURCES.**

The following sources were used to draft the permit:

A. Application No. AR0022756 received October 31, 2014, and additional information received on December 5, 2014 and February 9, 2015.
B. APCEC Regulation No. 2.
C. APCEC Regulation No. 3.
D. 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.
E. 40 CFR Parts 122 and 125.
F. 40 CFR Part 455.
G. Discharge permit file AR0022756.
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. USGS StreamStats GIS program at http://water.usgs.gov/osw/streamstats/arkansas.html.
M. Continuing Planning Process (CPP).

N. Technical Support Document For Water Quality-based Toxic Control.
O. "National Whole Effluent Toxicity (WET) Implementation Guidance Under the NPDES Program – Draft", EPA, November 2004.
P. Percentile and Outlier Calculations.
Q. Reasonable Potential Calculations.
R. Inspection Report #038467, dated March 17, 2008.
S. Compliance Review Memo dated November 12, 2014 from Leslie Allen-Daniel to Guy Lester.
T. Email, dated February 9, 2015, from Rex Robbins, P.E. of FTN Associates, Ltd. to Guy Lester of ADEQ.
U. E-mail letter from EPA, dated July 23, 2015, declining full review of preliminary draft permit.
V. Final Toxicity Evaluation Report.
W. Whole Effluent Toxicity Summary of Work Conducted and Anticipated.
X. Addemdum to Aquatic Toxicity Evaluation Status Report.
Y. Aquatic Toxicity Evaluation Update Report.
Z. Aquatic Toxicity Testing Progress Report.
AA. Letter, dated October 23, 2015, from Mary Barnett of ADEQ to Brian Mulhearn of EnSafe.

18. **PUBLIC NOTICE.**

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

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

19. **POINT OF CONTACT.**

For additional information, contact:

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

DRAFT

Permit Number: AR0022756
AFIN: 54-00009

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.),

Helena Industries, Inc.

is authorized to discharge stormwater runoff from a facility located as follows: 101 Martin Luther King Drive, West Helena, AR 72390, approximately 1 mile west of downtown West Helena and SE intersection of Highway 49B and Highway 49 in Phillips County, Arkansas. The applicant's mailing address is: P.O. Box 2336, West Helena, AR 72390.

Latitude: 34° 33' 2.96" N; Longitude: 90° 39' 18.94" W

to receiving waters named:

unnamed drainage ditches, then to Crooked Creek, then to Lick Creek, then to Big Creek, then to the White River in Segment 4A of the White River Basin.

The outfall is located at the following coordinates:

Outfall 001: Latitude: 34° 33' 12.2 N"; Longitude: 90° 39' 20.1" 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.

Effective Date:
Expiration Date:

_____ _____

Caleb J. Osborne
Associate Director, Office of Water Quality
Arkansas Department of Environmental Quality

Issue Date

PART I
PERMIT REQUIREMENTS

SECTION A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS: OUTFALL 001 – contaminated stormwater runoff.

During the period beginning on the effective date, and lasting until the date of expiration, the permittee is authorized to discharge from Outfall 001. Such discharges shall be limited and monitored by the permittee as specified below 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.	Daily Max	Monthly Avg.	Daily Max		
Flow	N/A	N/A	Report, MGD	Report, MGD	once/day[1]	instantaneous
Chemical Oxygen Demand (COD)	N/A	N/A	50.0	75.0	once/month	grab
Oil and Grease (O&G)	N/A	N/A	10.0	15.0	once/quarter	grab
pH	N/A	N/A	Minimum 6.0 s.u.	Maximum 9.0 s.u.	once/quarter	grab
Acute WET Limit **Pimephales promelas** 51714 **Daphnia pulex** 51711	N/A	N/A	not < 62%		once/2 months	24-hr composite
Pimephales promelas (Acute)[2]			48-hr Minimum			
Pass/Fail Lethality (48-Hr NOEC) TEM6C			Report (Pass=0/Fail=1)			
Survival (48-Hr NOEC) TOM6C			Report %		once/2 months	24-hr composite
Coefficient of Variation (48-Hr NOEC) TQM6C			Report %		once/2 months once/2 months	24-hr composite 24-hr composite
Daphnia pulex (Acute)[2]			48-hr Minimum			
Pass/Fail Lethality (48-Hr NOEC) TEM3D			Report (Pass=0/Fail=1)		once/2 months	24-hr composite
Survival (48-Hr NOEC) TOM3D			Report %		once/2 months	24-hr composite
Coefficient of Variation (48-Hr NOEC) TQM3D			Report %		once/2 months	24-hr composite

[1] When discharging. Monitoring shall be performed once per calendar day if the duration of the discharge is greater than 24 hours.
[2] See Condition No. 4 of Part II (WET Limit Requirements).

There shall be no discharge of distinctly visible solids, scum, or foam of a persistent nature, nor shall there be any formation of slime, bottom deposits, or sludge banks. 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 at the outfall.

SECTION B. PERMIT COMPLIANCE SCHEDULE

None.

PART II
OTHER CONDITIONS

1. 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.

2. 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 Branch of the Office of Water Quality 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.
   - 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.

3. Best Management Practices (BMPs), as defined in Part IV.6, must be implemented for the facility to prevent or reduce the pollution of waters of the State from stormwater runoff, spills or leaks, and/or waste disposal. The permittee must amend the BMPs whenever there is a change in the facility or a change in the operation of the facility.

4. WHOLE EFFLUENT TOXICITY LIMITS (48-HOUR ACUTE NOEC FRESHWATER)

1. SCOPE AND METHODOLOGY

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

APPLICABLE TO FINAL OUTFALL:	001
REPORTED ON DMR AS FINAL OUTFALL:	001
CRITICAL DILUTION (%):	62
EFFLUENT DILUTION SERIES (%):	26, 35, 47, 62, 83
LETHAL LIMIT	62
TESTING FREQUENCY	once/two months
COMPOSITE SAMPLE TYPE:	Defined at Part II.4.2.d
TEST SPECIES/METHODS:	40 CFR Part 136

Daphnia pulex acute static renewal 48-hour definitive toxicity test using EPA-821-R-02-012, or the latest 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.

Pimephales promelas (Fathead minnow) acute static renewal 48-hour definitive toxicity test using EPA-821-R-02-012, or the latest update thereof. A minimum of five (5) replicates with eight (8) organisms per replicate must be used in the control and in each effluent dilution of this test.

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

c. The conditions of this item are effective beginning with the effective date of the WET limit. When the testing frequency stated above is less than monthly and the effluent fails the survival endpoint at or below the critical

dilution, the permittee shall be considered in violation of this permit limit and the frequency for the affected species will increase to monthly until such time compliance with the No Observed Effect Concentration (NOEC) effluent limitation for toxicity is demonstrated for a period of three consecutive months, at which time the permittee may return to the testing frequency stated in PART I of this permit. During the period the permittee is out of compliance, test results shall be reported on the DMR for that reporting period.

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.

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

2. 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. Each toxicity test control (0% effluent) must have a survival equal to or greater than 90%.

ii. The percent coefficient of variation between replicates shall be 40% or less in the control (0% effluent) for the Daphnia pulex survival test and Fathead minnow survival test.

iii. The percent coefficient of variation between replicates shall be 40% or less in the critical dilution unless significant lethal effects are exhibited for the Daphnia pulex survival test and/or the Fathead minnow survival test.

iv. 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 survival in the Daphnia pulex survival test or the survival endpoint 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.

v. 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%.

b. STATISTICAL INTERPRETATION

For the Daphnia pulex survival test and the Fathead minnow survival test, the statistical analyses used to determine if there is a statistically significant difference between the control and the critical dilution shall be in accordance with the methods fEPA-821-R-02-012 or the most recent update thereof.

If the conditions of Test Acceptability are met in Item 2.a above and the percent survival of the test organism is equal to or greater than 90% in the critical dilution concentration and all lower dilution concentrations, the test shall be considered to be a passing test, and the permittee shall report an NOEC of not less than the critical dilution for the DMR reporting requirements found in Item 3 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 2.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 2.a was run concurrently with the receiving water control;

(B) the test indicating receiving water toxicity has been carried out to completion (i.e., 48 hours);

(C) the permittee includes all test results indicating receiving water toxicity with the full report and information required by Item 3.a 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 two 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 a second composite sample for use during the 24-hour renewal of each dilution concentration for both tests. The permittee must collect the composite samples so that the maximum holding time for any effluent sample shall not exceed 36 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.

iii. The permittee must collect both flow-weighted composite samples within the monitoring period. The second composite sample 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 such that the effluent samples are representative of any periodic episode of chlorination, biocide usage or other potentially toxic substance discharged on a regular or intermittent basis.

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. 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 3 of this section.

3. REPORTING

a. The permittee shall prepare a full report of the results of all tests conducted pursuant to this Part in accordance with the Report Preparation Section of EPA-821-R-02-012, for every valid or invalid toxicity test initiated, whether carried to completion or not. The permittee shall retain each full report pursuant to the provisions of PART III.C.7 of this permit. The permittee shall submit full reports. For any test which fails, is considered invalid or which is terminated early for any reason, the full report must be submitted for agency review.

b. The permittee shall report the Whole Effluent Lethality values for the 30-Day Average Minimum and the 48-Hr. Minimum under Parameter Nos. 51711 and 51714 on the DMR for that reporting period in accordance with PART III.D.4 of this permit.

If more than one valid test for a species was performed during the reporting period, the test NOECs will be averaged arithmetically and reported as the DAILY AVERAGE MINIMUM NOEC for that reporting period.

If more than one species is tested during the reporting period, the permittee shall report the lowest 30-Day Average Minimum NOEC and the lowest 48-Hr. Minimum NOEC for Whole Effluent Lethality.

A valid test for each species must be reported on the DMR during each reporting period specified in PART I of this permit. 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 Survival results for each species during the reporting period. The full report 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 the valid toxicity test on the 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. TEM6C.

(B) Report the NOEC value for survival, Parameter No. TOM6C.

(C) Report the highest (critical dilution or control) Coefficient of Variation, Parameter No. TQM6C.

ii. Daphnia pulex

(A) If the NOEC for survival is less than the critical dilution, enter a "1"; otherwise, enter a "0" for Parameter No. TEM3D.

(B) Report the NOEC value for survival, Parameter No. TOM3D.

(C) Report the highest (critical dilution or control) Coefficient of Variation, Parameter No. TQM3D.

4. MONITORING FREQUENCY REDUCTION

This section does not apply to any species for which the permit establishes new whole effluent toxicity (WET) limits. For the first three years after the effective date of a WET limit, the minimum monitoring frequency for the affected species is once per two months (in accordance with Item 1.a.).

a. The permittee may apply for a testing frequency reduction upon the successful completion of the first six consecutive once/2 month periods of testing for a test species, with no 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 quarterly.

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 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. SURVIVAL FAILURES - If any test fails the survival 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 2 months until the permit is re-issued.

d. This monitoring frequency reduction applies only until the expiration date of this permit, at which time the monitoring frequency for both test species reverts to once per 2 months until the permit is re-issued.

5. In accordance with 40 CFR 455.44(a), there shall be no discharge of process wastewater from this facility.

6. The permittee must conduct a PPS and complete Part V of EPA Form 2C (i.e., analysis of effluent characteristics and potential toxic pollutants) at Outfall 001 at the next representative discharge. The PPS and Part V of EPA Form 2C must be submitted to ADEQ within 90 days of the discharge.

PART III
STANDARD CONDITIONS

SECTION A – GENERAL CONDITIONS

1. Duty to Comply

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

2. Penalties for Violations of Permit Conditions

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

3. Permit Actions

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

A. Violation of any terms or conditions of this permit.
B. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts.
C. A change in any conditions that requires either a temporary or permanent reduction or elimination of the authorized discharge.
D. A determination that the permitted activity endangers human health or the environment and can only be regulated to acceptable levels by permit modification or termination.
E. Failure of the permittee to comply with the provisions of 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.
(c) The permittee submitted notices as required by Part III.B.4.b.

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

5. Upset Conditions

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

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

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

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

6. Removed Substances

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

B. Any changes to the permittee's disposal practices described in 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
Office of Water Quality
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 individual(s) who performed the sampling or measurements.
C. The date(s) and time analyses were performed.
D. The individual(s) who performed the analyses.
E. The analytical techniques or methods used.
F. The measurements and results of such analyses.

9. Inspection and Entry

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

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

SECTION D – REPORTING REQUIREMENTS

1. Planned Changes

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

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

2. Anticipated Noncompliance

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

3. Transfers

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

4. Monitoring Reports

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

5. Compliance Schedule

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

6. Twenty-four Hour Report

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

1. A description of the noncompliance and its cause.
2. The period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue. 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.
3. Violation of a maximum daily discharge limitation for any of the pollutants listed by the Director in Part I of the permit to be reported within 24 hours to the Enforcement Branch of the Office of Water Quality of the 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 Branch of the Office of Water Quality 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).
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.
   (b) The manager of one or more manufacturing, production, or operation facilities, provided: the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to

sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

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

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

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

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

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

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

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

12. <u>Availability of Reports</u>

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.
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.