

Permit number: AR0038822

**AUTHORIZATION TO DISCHARGE 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 (Act 472 of 1949, as amended, Ark. Code Ann. 8-4-101 et seq.), and the Clean Water Act (33 U.S.C. 1251 et seq.),

Cooper Tire & Rubber Company  
3500 Washington Road  
Texarkana, AR 71854

is authorized to discharge from a facility located

1.5 miles east of the center of the city of Texarkana, bounded on north by Washington Road, on the west by Arkansas Loop 245, south by Tennessee Road, and east by farmland, in Section 28, Township 15 South, Range 28 West in Miller County, Arkansas.

Latitude: 33° 25' 10"; Longitude: 94° 00' 10"

to receiving waters named:

unnamed tributary of Nix Creek, thence to Nix Creek, thence to Day's Creek, thence to Sulfur River, thence to the Red River in Segment 1B of the Red River Basin.

The outfall is located at the following coordinates:

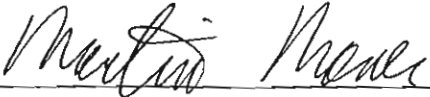
Outfall 001: Latitude: 33° 25' 10"; Longitude: 94° 00' 10"

in accordance with effluent limitations, monitoring requirements, and other conditions set forth in Parts I, II (Version 2), III, and IV (Version 2) hereof.

This permit shall become effective on July 1, 2003.

This permit and the authorization to discharge shall expire at midnight, June 30, 2008.

Signed this 31<sup>st</sup> day of May, 2003

  
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Martin Maner, P.E.  
Chief, Water Division  
Arkansas Department of Environmental Quality

**PART I  
PERMIT REQUIREMENTS**

**SECTION A. INTERIM EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS: OUTFALL  
001-stormwater**

During the period beginning on effective date and lasting until three years from the effective date, the permittee is authorized to discharge from outfall serial number 001 - stormwater. Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristics	Discharge Limitations				Monitoring Requirements	
	Mass (lbs/day, unless otherwise specified)		Concentration (mg/l, unless otherwise specified)		Frequency	Sample Type
	Monthly Avg.	Daily Max	Monthly Avg.	Daily Max		
Flow <sup>1</sup>	N/A	N/A	N/A	N/A	two/month <sup>4</sup>	estimated
Chemical Oxygen Demand (COD)	N/A	N/A	50	75	two/month <sup>4</sup>	grab
Biochemical Oxygen Demand (BOD5)	N/A	N/A	Report	Report	two/month <sup>4</sup>	grab
Total Suspended Solids (TSS)	N/A	N/A	20	30	two/month <sup>4</sup>	grab
Zinc, Total <sup>6</sup>	N/A	N/A	Report, µg/l	Report, µg/l	once/month <sup>4</sup>	3-hr composite <sup>5</sup>
Oil and Grease (O & G)	N/A	N/A	10	15	two/month <sup>4</sup>	grab
pH	N/A	N/A	<u>Minimum</u> 6 s.u.	<u>Maximum</u> 9 s.u.	two/month <sup>4</sup>	grab
<b>Whole Effluent Lethality (48-hr NOEC)<sup>2,3</sup> 22414</b>	30-day Avg Min not < 100%		48-Hr Min not < 100%		Once/quarter	24-hr composite
<b><u>Pimephales promelas (Acute)<sup>2</sup></u> Pass/Fail Lethality (48-Hr NOEC) TEM6C Survival (48-Hr NOEC) TOM6C</b>			48-Hr Minimum Report (Pass=0/Fail=1) Report%		Once/quarter Once/quarter	24-hr composite 24-hr composite
<b><u>Daphnia pulex (Acute)<sup>2</sup></u> Pass/Fail Lethality (48-Hr NOEC) TEM3D Survival (48-Hr NOEC) TOM3D</b>			48-Hr Minimum Report (Pass=0/Fail=1) Report%		Once/quarter Once/quarter	24-hr composite 24-hr composite

- 1 Report monthly average and daily maximum as MGD.
- 2 See Condition No. 2 of Part III.
- 3 The daily average minimum lethality and 48-hr minimum lethality (48-Hr NOEC) value shall not be less than 100% effluent. The NOEC value is defined as the greatest effluent concentration which does not elicit lethality that is statistically different from the control (0% effluent) at the 95% confident level.
- 4 When discharging.
- 5 See Condition No. 5 of Part III.
- 6 See Condition No. 4 of Part III.

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.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): at the outfall 001.

**PART I  
PERMIT REQUIREMENTS**

**SECTION A. FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS: OUTFALL  
001-stormwater**

During the period beginning three years from the effective date and lasting until date of expiration, the permittee is authorized to discharge from outfall serial number 001 - stormwater. Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristics	Discharge Limitations				Monitoring Requirements	
	Mass (lbs/day, unless otherwise specified)		Concentration (mg/l, unless otherwise specified)		Frequency	Sample Type
	Monthly Avg.	Daily Max	Monthly Avg.	Daily Max		
Flow <sup>1</sup>	N/A	N/A	N/A	N/A	two/month <sup>4</sup>	estimated
Chemical Oxygen Demand (COD)	N/A	N/A	50	75	two/month <sup>4</sup>	grab
Total Organic Carbon (TOC)	N/A	N/A	37	55	two/month <sup>4</sup>	grab
Total Suspended Solids (TSS)	N/A	N/A	20	30	two/month <sup>4</sup>	grab
Zinc, Total <sup>6</sup> (Dec-May)	N/A	N/A	200µg/l	402µg/l	once/month <sup>4</sup>	3-hr composite <sup>5</sup>
(Jun-Nov)	N/A	N/A	116 µg/l	232 µg/l	once/month <sup>4</sup>	3-hr composite <sup>5</sup>
Oil and Grease (O & G)	N/A	N/A	10	15	two/month <sup>4</sup>	grab
pH	N/A	N/A	Minimum 6 s.u.	Maximum 9 s.u.	two/month <sup>4</sup>	grab
<b>Whole Effluent Lethality (48-hr NOEC)<sup>2,3</sup> 22414</b>	<u>30-day Avg Min</u> not < 100%		<u>48-Hr Min</u> not < 100%		Once/quarter	24-hr composite
<b><u>Pimephales promelas (Acute)<sup>2</sup></u></b>			<u>48-Hr Minimum</u>			
Pass/Fail Lethality (48-Hr NOEC) <b>TEM6C</b>			Report (Pass=0/Fail=1)		Once/quarter	24-hr composite
Survival (48-Hr NOEC) <b>TOM6C</b>			Report%		Once/quarter	24-hr composite
<b><u>Daphnia pulex (Acute)<sup>2</sup></u></b>			<u>48-Hr Minimum</u>			
Pass/Fail Lethality (48-Hr NOEC) <b>TEM3D</b>			Report (Pass=0/Fail=1)		Once/quarter	24-hr composite
Survival (48-Hr NOEC) <b>TOM3D</b>			Report%		Once/quarter	24-hr composite

- 1 Report monthly average and daily maximum as MGD.
- 2 See Condition No. 2 of Part III.
- 3 The daily average minimum lethality and 48-hr minimum lethality (48-Hr NOEC) value shall not be less than 100% effluent. The NOEC value is defined as the greatest effluent concentration which does not elicit lethality that is statistically different from the control (0% effluent) at the 95% confident level.
- 4 When discharging.
- 5 See Condition No. 5 of Part III.
- 6 See Condition No. 4 of Part III.

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.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): at the outfall 001.

**SECTION B. SCHEDULE OF COMPLIANCE**

The permittee shall achieve compliance with the effluent limitations specified for discharges in accordance with the following schedule:

Interim Limits:

Compliance is required on the effective date of the permit.

Final Limits:

The permittee shall submit progress reports to the NPDES Enforcement Section addressing the progress towards attaining the final effluent limits for Zinc at Outfall 001 according to the following schedule:

<u>ACTIVITY</u>	<u>DUE DATE</u>
Progress Report	one (1) year from effective date of permit
Progress Report	two (2) years from effective date of permit
Achieve Final Limits	three (3) years from effective date of permit

Compliance with Zinc final limits is required three (3) years from the effective date of the permit.

The permittee has the option to perform a stream study on the receiving stream. If an approved study, showing that the 7Q10 is greater than 0 cfs, is submitted to the Department prior to the deadline for compliance with Final Limits, the permit may be reopened to re-evaluate permit limits for Zinc.

The permittee may conduct a wasteload allocation study for the receiving stream to establish discharge limitations for COD and TSS based on Arkansas Water Quality Standards, Regulation No. 2. If an approved study indicates that less stringent effluent limitations and/or Water Quality based limits are appropriate, the permit will be reopened for a major modification and effluent limitations will be revised.

## PART II — 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; or for denial of a permit renewal application. Any values reported in the required Discharge Monitoring Report which are in excess of an effluent limitation specified in Part 1.A 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 ten thousand dollars (\$10,000) 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 five thousand dollars (\$5,000) 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 Action**  
This permit may be modified, revoked and reissued, or terminated for cause including, but not limited to, the following:
  - a. Violation of any terms or conditions of this permit; or
  - b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or
  - c. A change in any conditions that requires either a temporary or permanent reduction or elimination of the authorized discharge; or
  - d. A determination that the permitted activity endangers human health or the environment and can only be regulated to acceptable levels by permit modification or termination.
  - e. Failure of the permittee to comply with the provisions of ADPCE Regulation No. 9 (Permit fees) as required by condition 11.A. 10 herein.
 The filing of a request by the permittee for a permit modification, revocation and reissuance, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.
4. **Toxic Pollutants**  
Notwithstanding Part 11.A.3., if any toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under Regulation No. 2, as amended (regulation establishing water quality standards for surface waters of the State of Arkansas) 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 limitation 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 or prohibitions established under Regulation No. 2 (Arkansas Water Quality Standards), 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 on "Bypassing" (Part 11.B.4.a.), and "Upsets" (Part 11.B.5.b.), nothing in this permit shall be construed to relieve the permittee from civil 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 statutes 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 (Act 472 of 1949, as amended).
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 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 constitute a governmental taking of property.

9. **Severability**  
The provisions of this permit are severable. If any provisions of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provisions to other circumstances, and the remainder of this permit, shall not be affected thereby.
10. **Permit Fees**  
The permittee shall comply with all applicable permit fee requirements for wastewater discharge permits as described in ADPCE 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 122.64 and 124.5(d), as adopted in ADPCE Regulation No. 6, and the provisions of ADPCE 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 carry out 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 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 reasonable likelihood of adversely affecting human health or the environment.
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 provision of Part 11.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 11.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 periods of equipment downtime or preventive maintenance; and
      - (c) The permittee submitted notices as required by Part 11.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 11.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 11.B.5.b of this section are met. It

b. Conditions necessary for a 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 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 II.D.6.; and
- (4) The permittee complied with any remedial measures required by Part II.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

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 the waters of the state. Written approval for such disposal must be obtained from the ADPCE.

#### 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 wastestream, body of water, or substance. Monitoring points shall not be changed without notification to and the approval of the Director. Intermittent discharges shall be monitored.

### 2. Flow Measurements

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  $\pm 10\%$  from true discharge rates throughout the range of expected discharge volumes and shall be installed at the monitoring point of the discharge.

### 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 (EPA No. 3320-1). Permittees are required to use preprinted DMR forms provided by ADPCE, unless specific written authorization to use other reporting forms is obtained from ADPCE. Monitoring results obtained during the previous calendar month shall be summarized and reported on a DMR form postmarked no later than the 25th day of the month following the completed reporting period to begin on the effective date of the permit. Duplicate copies of DMR's signed and certified as required by Part II.d.1) and all other reports required by Part II.D. (Reporting Requirements), shall be submitted to the Director at the following address:

Director  
Arkansas Department of Pollution  
Control and Ecology  
8001 National Drive  
P.O. Box 8913  
Little Rock, AR 72219-8913

### 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 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) analyses were formed;
- d. The individual(s) who performed the analyses;
- e. The analytical techniques or methods used; and
- f. The measurements and results of such analyses.

### 9. Inspection and Entry

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

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

## SECTION D — REPORTING REQUIREMENTS

### 1. Planned Changes

The permittee shall give notice and provide plans and specification to the Director for review and approval prior to any planned physical alterations or additions to the permitted facility. Notice is required only when:

#### For Industrial Dischargers

- a. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR Part 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 which are subject neither to effluent limitations in the permit, nor to notification requirements under 40 CFR Part 122.42(a)(1).

#### For POTW Dischargers:

- c. Any change in the facility discharge (including the introduction of any new source or significant discharge or significant changes in the quantity or quality of existing discharges of pollutants) must be reported to the permitting authority. In no case are any new connections, increased flows, or significant changes in influent quality permitted that will cause violation of the effluent limitations specified herein.

### 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 II.C.5. (Reporting). 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

**Twenty-four Hour Report**

- a. The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain the following information:
    - (1) a description of the noncompliance and its cause;
    - (2) the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and
    - (3) steps taken or planned to reduce, eliminate and prevent reoccurrence of the noncompliance.
  - b. The following shall be included as information which must be reported within 24 hours:
    - (1) Any unanticipated bypass which exceeds any effluent limitation in the permit;
    - (2) Any upset which exceeds any effluent limitation in the permit; and
    - (3) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Director in Part III of the permit to be reported within 24 hours.
  - c. The Director may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.
- 7. Other Noncompliance**  
The permittee shall report all instances of noncompliance not reported under Part II.D.4, 5, and 6, at the time monitoring reports are submitted. The reports shall contain the information listed at Part II.D.5.
- 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, in 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)(2)[48 FR 14153, April 1983, as amended at 49 FR 38046, September 26, 1984].
  - 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)[48 FR 14153, April 1, 1983, as amended at 49 FR 38046, September 26, 1984].
- 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 ADPCE Regulation No. 6.
- 11. Signatory Requirements**  
All applications, reports or information submitted to the Director shall be signed and certified.
- 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:
      - (i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or
      - (ii) the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
    - (2) For a partnership, sole proprietorship, or a general partner of the
    - (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:
      - (i) the chief executive officer of the agency, or
      - (ii) A senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.
  - b. All reports required by the permit and other information requested by the Director shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:
    - (1) The authorization is made in writing by a person described above.
    - (2) The authorization specified either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, or position of equivalent responsibility. (A duly authorized representative may thus be either a named individual or any individual occupying a named position); and
    - (3) The written authorization is submitted to the Director.
  - c. Certification. Any person signing a document under this section shall make the following certification:
 

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."
- 12. Availability of Reports**  
Except for data determined to be confidential under 40 CFR Part 2 and Regulation 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 Pollution Control and Ecology. 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 II.A.2. and/or criminal penalties under the authority of the Arkansas Water and Air Pollution Control Act (Act 472 of 1949, as amended).

PART III  
OTHER CONDITIONS

1. This permit is exclusively for the discharge of stormwater runoff. Any direct discharge of process wastewater to a receiving stream shall be a violation of this permit.

2. **WHOLE EFFLUENT TOXICITY TEST REQUIREMENT**(WET Limits, 48 HR. ACUTE, FRESHWATER)

1. **SCOPE AND METHODOLOGY**

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

APPLICABLE TO FINAL OUTFALL(S):	001
REPORTED ON DMR AS OUTFALL:	001
CRITICAL DILUTION:	100%
EFFLUENT DILUTION SERIES:	32,42,56,75,100
TEST SPECIES/METHODS:	40 CFR Part 136

Daphnia pulex acute static renewal 48-hour definitive toxicity test using EPA/600/4-90/027F, 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/600/4-90/027F, 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 lethality that is statistically different from the control (0% effluent) at the 95% confidence level does not occur. Chronic lethal test failure is defined as a demonstration of a statistically significant lethal effect at test completion to a test species at or below the critical dilution.

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 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 Lethal No Observed Effect Concentration (NOEC) effluent limitation is demonstrated for a period of three consecutive months, at which time the permittee may return to the testing frequency stated in Part I of this permit. During the period the permittee is out of compliance, test results shall be reported on the DMR for that reporting period.

- 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 the and/or the fathead minnow survival test.

Test failure may not be construed or reported as invalid due to a coefficient of variation value of greater than 40%. A repeat test shall be conducted within the required reporting period of any test determined to be invalid.

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 for determining the No Observed Effect Concentration (NOEC) as described in EPA/600/4-90/027F, 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 80% in the critical dilution

concentration and all lower dilution concentrations, the test shall be considered to be a passing test, and the permittee shall report 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 where the receiving stream is classified as intermittent or where the receiving stream has no flow 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 24-hour composite samples from the outfall(s) listed at item 1.a. above. A 24-hour composite sample consists of a minimum of 4 effluent portions collected at equal time intervals representative of a 24-hour operating day and combined proportional to flow or a sample continuously collected proportional to flow over a 24-hour operating day.

- ii. The permittee shall collect a second 24-hour composite sample for use during the 24-hour renewal of each dilution concentration for both tests. The permittee must collect the 24-hour 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 24-hour composite sample. Samples shall be chilled to 4 degrees Centigrade during collection, shipping and/or storage.
- iii. The permittee shall collect the 24-hour composite samples such that the effluent samples are representative of any periodic episode of chlorination, biocide usage or other potentially toxic substance discharged on an intermittent basis.
- iv. 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 collect an effluent composite sample volume during the period of discharge that is sufficient to complete the required toxicity tests with daily renewal of effluent. When possible, the effluent samples used for the toxicity tests shall be collected on separate days. 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.
- v. MULTIPLE OUTFALLS: If the provisions of this section are applicable to multiple outfalls, the permittee shall combine the 24-hour composite effluent samples in proportion to the average flow from the outfalls listed in item 1.a. above for the day the sample was collected. The permittee shall perform the toxicity test on the flow-weighted composite of the outfall samples.
- vi. Chlorination/Dechlorination: The permittee shall have the sample dechlorinated in the laboratory **prior** to installation of dechlorination systems. However, upon operation of dechlorination systems, the permittee shall not allow the sample to be dechlorinated at the laboratory.

### 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/600/4-90/027F, 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. of this permit. The permittee shall submit full reports only upon the specific request of the Agency.

- b. The permittee shall report the Whole Effluent Lethality values for the 30-Day Average Minimum and the 48-Hr. Minimum under Parameter No. 22414 on the DMR for that reporting period.

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.

- c. The permittee shall submit the results of the valid toxicity test on the DMR for that reporting period. 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.

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.

3. **Storm Water Pollution Prevention Plan Requirements**

A. **General**

- (1) If your facility already has a storm water pollution prevention plan (SWPPP) in place, then you shall continue the implementation of this SWPPP. If you do not have a SWPPP, then you shall prepare a SWPPP for your facility within 60 days of the effective starting date of this permit. Your SWPPP must be prepared in accordance with good engineering practices. Your SWPPP must:

- (a) Identify potential sources of pollution which may reasonably be expected to affect the quality of storm water discharges from your facility;
- (b) Describe and ensure implementation of practices which you will use to reduce the pollutants in storm water discharges from the facility; and
- (c) Assure compliance with the terms and conditions of this permit.

**B. Contents of Plan**

**(1) Pollution Prevention Team**

- (a) You must identify the staff individual(s) (by name or title) that comprise the facility's storm water Pollution Prevention Team. Your Pollution Prevention Team is responsible for assisting the facility/plant manager in developing, implementing, maintaining and revising the facility's SWPPP. Responsibilities of each staff individual on the team must be listed.

**(2) Site Description**

- (a) Your SWPPP must include the following:
  - i. *Activities at Facility.* Description of the nature of the industrial activity(ies) at your facility;
  - ii. *General Location Map.* A general location map (e.g., U.S.G.S. quadrangle, or other map) with enough detail to identify the location of your facility and the receiving waters within one mile of the facility;
  - iii. A legible site map identifying the following:
    - (a) Directions of storm water flow (e.g., use arrows to show which ways storm water will flow);
    - (b) Locations of all existing structural BMPs;
    - (c) Locations of all surface water bodies;
    - (d) Locations of potential pollutant sources identified under SectionB.(4)(a) of this Part and where significant materials are exposed to precipitation;

- (e) Location where major spills or leaks identified under Section B(5) of this Part have occurred;
- (f) Locations of the following activities where such activities are exposed to precipitation: fueling stations, vehicle and equipment maintenance and/or cleaning areas, loading/unloading areas, locations used for the treatment, storage or disposal of wastes, and liquid storage tanks;
- (g) Locations of storm water outfalls and an approximate outline of the area draining to each outfall;
- (h) Location and description of non-storm water discharges;
- (i) Locations of the following activities where such activities are exposed to precipitation: processing and storage areas; access roads, rail cars and tracks; the location of transfer of substance in bulk; and machinery;
- (j) Location and source of runoff from adjacent property containing significant quantities of pollutants of concern to the facility (an evaluation of how the quality of the runoff impacts your storm water discharges may be included).

**(3) Receiving Waters and Wetlands**

- (a) You must provide the name of the nearest receiving water(s), including intermittent streams, dry sloughs, arroyos and the areal extent and description of wetland or other special aquatic sites that may receive discharges from your facility.

**(4) Summary of Potential Pollutant Source**

- (a) You must identify each separate area at your facility where industrial materials or activities are exposed to storm water. Industrial materials or activities include, but are not limited to, material handling equipment or activities, industrial machinery, raw materials, intermediate products, by-products, final products, or waste products. Material handling activities include the storage, loading unloading, transportation, or conveyance of any raw

material, intermediate product, final product or waste product. For each separate area identified, the description must include:

- i. *Activities in Area.* A list of the activities (e.g., material storage, equipment fueling and cleaning, cutting steel beams); and
- ii. *Pollutants.* A list of the associated pollutant(s) or pollutant parameter(s) (e.g., crankcase oil, iron, biochemical oxygen demand, pH, etc.) for each activity. The pollutant list must include all significant materials that have been handled, treated, stored or disposed in a manner to allow exposure to storm water between the time of three (3) years before being covered under this permit and the present.

**(5) Spills and Leaks**

- (a) You must clearly identify areas where potential spills and leaks, which can contribute pollutants to storm water discharges, can occur, and their accompanying drainage points. For areas that are exposed to precipitation or that otherwise drain to a storm water conveyance at the facility to be covered under this permit, you must provide a list of significant spills and leaks of toxic or hazardous pollutants that occurred during the three (3) year period prior to the starting date of this permit. Your list must be updated if significant spills or leaks occur in exposed areas of your facility during the time you are covered by the permit.
- (b) Significant spills and leaks include, but are not limited to releases of oil or hazardous substances in excess of quantities that are reportable under CWA 311 (see 40 CFR 110.10 AND 40 CFR 117.21) or section 102 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). Significant spills may also include releases of oil or hazardous substances that are not in excess of reporting requirements.

**(6) Sampling Data**

- (a) You must provide a summary of existing storm water discharge sampling data taken at your facility. All storm water sampling data collected during the term of this permit must also be summarized and included in this part of the SWPPP.

(7) **Storm Water Controls**

- (a) Description of Existing and Planned BMPs. Describe the type and location of existing non-structural and structural best management practices (BMPs) selected for each of the areas where industrial materials or activities are exposed to storm water. All the areas identified in Section B(4)(a) of this Part should have a BMP(s) identified for the areas discharges. For areas where BMPs are not currently in place, describe appropriate BMPs that you will use to control pollutants in storm water discharges. Selection of BMPs should take into consideration:
- i. The quantity and nature of the pollutants, and their potential to impact the water quality of receiving waters;
  - ii. Opportunities to combine the dual purposes of water quality protection and local flood control benefits (including physical impacts of high flows on streams - e.g., bank erosion, impairment of aquatic habitat, etc.);
  - iii. Opportunities to offset the impact impervious areas of the facility on ground water recharge and base flows in local streams (taking into account the potential for ground water contamination.)
- (b) BMP Types to be Considered. The following types of structural, non-structural, and other BMPs must be considered for implementation at your facility. Describe how each is, or will be, implemented. This requirement may have been fulfilled with area-specific BMPs identified under Section B(7)(a) of this Part, in which case the previous descriptions are sufficient. However, many of the following BMPs may be more generalized or non site-specific and therefore not previously considered. If you determine that any of these BMPs are not appropriate for your facility, you must include an explanation of why they are not appropriate. The BMP examples listed below are not intended to be an exclusive list of BMPs that you may use. You are encourage to keep abreast of new BMPs or new applications of existing BMPs to find the most cost effective means of permit compliance for your facility. If BMPs are being used or planned at the facility which are not listed here (e.g., replacing a chemical with a less toxic alternative, adopting a new or innovative BMP, etc.), include descriptions of them in this section of the SWPPP.



(c) Non-Structural BMPs

- i. *Good Housekeeping:* You must keep all exposed areas of the facility in a clean, orderly manner where such exposed areas could contribute pollutants to storm water discharges. Common problem areas include: around trash containers, storage areas and loading docks. Measures must also include: a schedule for regular pickup and disposal of garbage and waste materials; routine inspections for leaks and conditions of drums, tanks and containers.
- ii. *Minimizing Exposure:* Where practicable, industrial materials and activities should be protected by a storm resistant shelter to prevent exposure to rain, snow, snowmelt, or runoff.
- iii. *Preventive Maintenance:* You must have a preventive maintenance program which includes timely inspection and maintenance of storm water management devices, (e.g., cleaning oil/water separators, catch basins) as well as inspecting, testing, maintaining and repairing facility equipment and systems to avoid breakdowns or failures that may result in discharges of pollutants to surface waters.
- iv. *Spill Prevention and Response Procedures:* You must describe the procedures which will be followed for cleaning up spills or leaks. Those procedures, and necessary spill response equipment, must be made available to those employees that may cause or detect a spill or leak. Where appropriate, you must explain existing or planned material handling procedures, storage requirements, secondary containment, and equipment (e.g., diversion valves), which are intended to minimize spills or leaks at the facility. Measures for cleaning up hazardous material spills or leaks must be consistent with applicable RCRA regulations at 40 CFR Part 264 and 40 CFR Part 265.
- v. *Routine Facility Inspections:* In addition to or as part of the comprehensive site evaluation required under Section G of this Part, you must have qualified facility personnel inspect all areas of the facility where industrial materials or activities are exposed to storm water. The inspections must include an evaluation of existing storm water BMPs. Your SWPPP must identify how often these inspections will be

conducted. You must correct any deficiencies you find as soon as practicable, but no later than 14 days from the date of the inspection. You must document in your SWPPP the results of your inspections and the corrective actions you took in response to any deficiencies or opportunities for improvement that you identify.

- vi. *Employee Training:* You must describe the storm water employee training program for the facility. The description should include the topics to be covered, such as spill response, good housekeeping, and material management practices, and must identify periodic dates (e.g., every 6 months during the months of July and January) for such training. You must provide employee training for all employees that work in areas where industrial materials or activities are exposed to storm water, and for employees that are responsible for implementing activities identified in the SWPPP (e.g., inspectors, maintenance people). The employee training should inform them of the components and goals of your SWPPP.

(d) Structural BMPs

- i. *Sediment and Erosion Control:* You must identify the areas at your facility which, due to topography, land disturbance (e.g., construction), or other factors, have a potential for significant soil erosion. You must describe the structural, vegetative, and/or stabilization BMPs that you will be implementing to limit erosion.
- ii. *Management of Runoff:* You must describe the traditional storm water management practices (permanent structural BMPs other than those which control the generation or source(s) of pollutants) that currently exist or that are planned for your facility. These types of BMPs typically are used to divert, infiltrate, reuse, or otherwise reduce pollutants in storm water discharges from the site. Factors to consider when you are selecting appropriate BMPs should include: 1) the industrial materials and activities that are exposed to storm water, and the associated pollutant potential of those materials and activities; and 2) the beneficial and potential detrimental effects on surface water quality, ground water quality, receiving water base flow (dry weather stream flow), and physical integrity of receiving waters. Structural measures should be placed on upland soils, avoiding wetlands and flood plains, if

possible. Structural BMPs may require a separate permit under section 404 of the CWA before installation begins.

- iii. *Example BMPs:* BMPs you could use include but are not limited to: storm water detention structures (including wet ponds); storm water retention structures; flow attenuation by use of open vegetated swales and natural depressions; infiltration of runoff onsite; and sequential systems (which combine several practices).

(e) Other Controls

- i. No solid materials, including floatable debris, may be discharged to waters of the United States, except as authorized by a permit issued under section 404 of the CWA. Off-site vehicle tracking of raw, final, or waste materials or sediments, and the generation of dust must be minimized. Tracking or blowing of raw, final, or waste materials from areas of no exposure to exposed areas must be minimized. Velocity dissipation devices must be placed at discharge locations and along the length of any outfall channel to provide a non-erosive flow velocity from the structure to a water course so that the natural physical and biological characteristics and functions are maintained and protected (e.g., no significant changes in the hydrological regime of the receiving water).

C. **Maintenance**

- (1) All BMPs you identify in your SWPPP must be maintained in effective operating condition. If site inspections required by Section B(7)(c)(v) of this Part identify BMPs that are not operating effectively, maintenance must be performed before the next anticipated storm event, or as necessary to maintain the continued effectiveness of storm water controls. If maintenance prior to the next anticipated storm event is impracticable, maintenance must be scheduled and accomplished as soon as practicable. In the case of non-structural BMPs, the effectiveness of the BMP must be maintained by appropriate means (e.g., spill response supplies available and personnel trained, etc.).

D. **Non-Storm Water Discharges**

(1) **Certification of Non-Storm Water Discharges**

- (a) Your SWPPP must include a certification that all discharges (i.e., outfalls) have been tested or evaluated for the presence of non-

storm water. The certification must be signed in accordance with Part II Section D.11 of the individual permit, and include:

- i. The date of any testing and/or evaluation;
- ii. Identification of potential significant sources of non-storm water at the site;
- iii. A description of the results of any test and/or evaluation for the presence of non-storm water discharges;
- iv. A description of the evaluation criteria or testing method used; and
- v. A list of the outfalls or onsite drainage points that were directly observed during the test.
- vi. If you are unable to provide the certification required (testing for non-storm water discharges), you must notify the Director 180 days after the effective starting date of this permit to be covered by this permit. If the failure to certify is caused by the inability to perform adequate tests or evaluations, such notification must describe:
- vii. The reason(s) why certification was not possible;
- viii. The procedure of any test attempted;
- ix. The results of such test or other relevant observations; and
- x. Potential sources of non-storm water discharges to the storm sewer.
- xi. A copy of the notification must be included in the SWPPP at the facility. Non-storm water discharges to waters of the United States which are not authorized by an NPDES permit are unlawful, and must be terminated.

**E. Allowable Non-storm Water Discharges**

- (1) Certain sources of non-storm water are allowable under this permit. In order for these discharges to be allowed, your SWPPP must include:
  - (a) An identification of each allowable non-storm water source;
  - (b) The location where it is likely to be discharged; and

- (c) Descriptions of appropriate BMPs for each source.
- (d) Except for flows from fire fighting activities, you must identify in your SWPPP all sources of allowable non-storm water that are discharged under the authority of this permit.
- (e) If you include mist blown from cooling towers amongst your allowable non-storm water discharges, you must specifically evaluate the potential for the discharges to be contaminated by chemicals used in the cooling tower and determined that the levels of such chemicals in the discharges would not cause or contribute to a violation of an applicable water quality standard after implementation of the BMPs you have selected to control such discharges.

**F. Applicable State or Local Plans**

- (1) Your SWPPP must be consistent (and updated as necessary to remain consistent) with applicable State and/or local storm water, waste disposal, sanitary sewer, or septic system regulations to the extent these apply to your facility and are more stringent than the requirements of this permit.

**G. Comprehensive Site Compliance Evaluation**

**(1) Frequency and Inspectors**

- (a) You must conduct facility inspections at least once a year. The inspections must be done by qualified personnel provided by you. The qualified personnel you use may be either your own employees or outside consultants that you have hired, provided they are knowledgeable and possess the skills to assess conditions at your facility that could impact storm water quality and assess the effectiveness of the BMPs you have chosen to use to control the quality of your storm water discharges. If you decide to conduct more frequent inspections, your SWPPP must specify the frequency of inspections.

**(2) Scope of the Compliance Evaluation**

- (a) Your inspections must include all areas where industrial materials or activities are exposed to storm water, as identified in Section B(4)(a) of this Part, and areas where spills and leaks have occurred within the past 3 years. Inspectors should look for: a) industrial materials, residue, or trash on the ground that could contaminate or be washed away in storm water; b) leaks or spills from industrial equipment, drums, barrels, tanks, or similar containers; c) offsite

tracking of industrial materials or sediment where vehicles enter or exit the site; d) tracking or blowing of raw, final, or waste materials from areas of no exposure to exposed areas; and e) for evidence of, or the potential for, pollutants entering the drainage system. Storm water BMPs identified in your SWPPP must be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they must be inspected to see whether BMPs are effective in preventing significant impacts to receiving waters. Where discharge locations are inaccessible, nearby downstream locations must be inspected if possible.

**(3) Follow-up Actions**

- (a) Based on the results of the inspections, you must modify your SWPPP as necessary (e.g., show additional controls on the map required by Section B(2)(a)(iii) of this Part and revise the description of controls required by Section B(7)(a) of this Part to include additional or modified BMPs designed to correct the problems identified. You must complete revisions to the SWPPP within 14 calendar days following the inspection. If existing BMPs need to be modified or if additional BMPs are necessary, implementation must be completed before the next anticipated storm event. If implementation before the next anticipated storm event is impracticable, they must be implemented as soon as practicable.

**(4) Compliance Evaluation Report**

- (a) You must insure a report summarizing the scope of the inspection, name(s) of personnel making the inspection, the date(s) of the inspection, and major observations relating to the implementation of the SWPPP is completed and retained as part of the SWPPP for at least three years from the date permit coverage expires or is terminated. Major observations should include: the location(s) of discharges of pollutants from the site; and location(s) of BMPs that need to be maintained; location(s) where additional BMPs are needed that did not exist at the time of inspection. You must retain a record of actions taken in accordance with Part II Section C.7 (Retention of Records) of this permit as part of the storm water pollution prevention plan for at least three years from the date that permit coverage expires or is terminated. The inspection reports must identify any incidents of non-compliance. Where an inspection report does not identify any incidents of non-compliance, the report must contain a certification that the facility is in compliance with the storm water pollution prevention plan

and this permit. Both the inspection report and any reports of follow-up actions must be signed in accordance with Part II Section D (Reporting Requirements) of this permit.

**(5) Credit As a Routine Facility Inspection**

- (a) Where compliance evaluation schedules overlap with inspections required under Section B(7)(c)(v) of this Part, your annual compliance evaluation may also be used as one of the Section B(7)(c)(v) of this Part , routine inspections.

**H. Maintaining Updated SWPPP**

- (1) You must amend the storm water pollution prevention plan whenever:
- (a) There is a change in design, construction, operation, or maintenance at your facility which has a significant effect on the discharge, or potential for discharge, of pollutants from your facility;
- (b) During inspections or investigations by you or by local, State, Tribal or Federal officials it is determined the SWPPP is ineffective in eliminating or significantly minimizing pollutants from sources identified under Section B(4) of this Part, or is otherwise not achieving the general objectives of controlling pollutants in discharges from your facility.

**I. Signature, Plan Review and Making Plans Available**

- (1) You must sign your SWPPP in accordance with Part II Section D.11, and retain the plan on-site at the facility covered by this permit (see Part II Section C.7 for records retention requirements).
- (2) You must keep a copy of the SWPPP on-site or locally available to the Director for review at the time of an on-site inspection. You must make your SWPPP available upon request to the Director, a State, Tribal or local agency approving storm water management plans, or the operator of a municipal separate storm sewer receiving discharge from the site. Also, in the interest of public involvement, EPA encourages you to make your SWPPPs available to the public for viewing during normal business hours.
- (3) The Director may notify you at any time that your SWPPP does not meet one or more of the minimum requirements of this permit. The notification will identify provisions of this permit which are not being met, as well as the required modifications. Within thirty (30) calendar days of receipt of such notification, you must make the required changes to the SWPPP and

submit to the Director a written certification that the requested changes have been made.

- (4) You must make the SWPPP available to the USFWS or NMFS upon request.

**J. Additional Requirements for Storm Water Discharges Associated With Industrial Activity From Facilities Subject to EPCRA Section 313 Reporting Requirements.**

- (1) Potential pollutant sources for which you have reporting requirements under EPCRA 313 must be identified in your summary of potential pollutant sources as per Section B(4) of this Part. Note this additional requirement only applies to you if you are subject to reporting requirements under EPCRA 313.

4. If any individual analytical test results is less than the minimum quantification level (MQL) listed below, a value of zero (0) may be used for that individual result for the Discharge Monitoring report (DMR) calculations and reporting requirements.

Pollutant	EPA Method	MQL ( $\mu\text{g/l}$ )
Zinc, Total	200.7	20

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

$$\text{MQL} = 3.3 \times \text{MDL}$$

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

5. In accordance with 40 CFR 122.21(g)(7)(ii), the flow weighted composite sample may be taken with a continuous sampler or as a combination of a minimum of three sample aliquots taken in each hour of discharge for the entire discharge or for the first three hours of the discharge, with each aliquot being separated by a minimum period of fifteen (15) minutes.



## PART IV — SECTION A — DEFINITIONS

All definitions contained in Section 502 of the Clean Water Act 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. "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.
4. "Applicable water quality standards" means all water quality standards to which a discharge is subject under the federal Clean Water Act and which have 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 regulation No. 2, as amended, (regulation establishing water quality standards for surface waters of the State of Arkansas).
5. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.
6. "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. For pollutants with limitations expressed in terms of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the sampling day. For pollutants with limitations expressed in other units of measurement, the "daily discharge" is calculated as the average measurement of the pollutant over the sampling day. "Daily discharge" determination of concentration made using a composite sample shall be the concentration of the composite sample. When grab samples are used, the "daily discharge" determination of concentration shall be the arithmetic average (weighted by flow value) of all the samples collected during that sampling day.
7. "Daily Average" (also known as monthly average) discharge limitations means the highest allowable average of "daily discharge(s)" over a calendar month, calculated as the sum of all "daily discharge(s)" measured during a calendar month divided by the number of "daily discharge(s)" measured during that month. When the permit establishes daily average concentration effluent limitations or conditions, the daily average concentration means the arithmetic average (weighted by flow) of all "daily discharge(s)" of concentration determined during the calendar month where C = daily concentration, f = daily flow and n = number of daily samples; daily average discharge =
 
$$\frac{C1f1 + C2f2 + \dots + Cnfn}{f1 + f2 + \dots + fn}$$
8. "Daily Maximum" discharge limitation means the highest allowable "daily discharge" during the calendar month.
9. "Department" means the Arkansas Department of Pollution Control and Ecology (ADPCE).
10. "Director" means the Administrator of the U.S. Environmental Protection Agency and/or the Director of the Arkansas Department of Pollution Control and Ecology.
11. "Grab sample" means an individual sample collected in less than 15 minutes in conjunction with an instantaneous flow measurement.
12. "Industrial User" means a nondomestic discharger, as identified in 40 CFR 403, introducing pollutants to a publicly-owned treatment works.
13. "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.
14. "POTW" means a Publicly Owned Treatment Works.
15. "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 productions.
16. "ADPCE" means the Arkansas Department of Pollution Control and Ecology.
17. "Sewage sludge" means the solids, residues, and precipitate separated from or created in sewage by the unit processes of a publicly-owned treatment works. Sewage as used in this definition means any wastes, including wastes from humans, households, commercial establishments, industries, and storm water runoff, that are discharged to or otherwise enter a publicly-owned treatment works.
18. "7-day average" discharge limitation, other than for fecal coliform bacteria, is the highest allowable arithmetic means of the values for all effluent samples collected during the calendar week. The 7-day average for fecal coliform bacteria is the geometric mean of the values of all effluent samples collected during the calendar week. The DMR should report the highest 7-day average obtained during the calendar month. For reporting purposes, the 7-day average values should be reported as occurring in the month in which the Saturday of the calendar week falls in.
19. "30-day average", other than for fecal coliform bacteria, is the arithmetic mean of the daily values for all effluent samples collected during 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. The 30-day average for fecal coliform bacteria is the geometric mean of the values for all effluent samples collected during a calendar month.
20. "24-hour composite sample" consists of a minimum of 12 effluent portions collected at equal time intervals over the 24-hour period and combined proportional to flow or a sample collected at frequent intervals proportional to flow over the 24-hour period.
21. "12-hour composite sample" consists of 12 effluent portions collected no closer together than one hour and composited according to flow. The daily sampling intervals shall include the highest flow periods.
22. "6-hour composite sample" consists of six effluent portions collected no closer together than one hour (with the first portion collected no earlier than 10:00 a.m.) and composited according to flow.
23. "3-hour composite sample" consists of three effluent portions collected no closer together than one hour (with the first portion collected no earlier than 10:00 a.m.) and composited according to flow.
24. "Treatment works" means any devices and systems used in the 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.
25. "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 or improper operations.
26. For "fecal coliform bacteria", a sample consists of one effluent grab portion collected during a 24-hour period at peak loads.
27. "Dissolved oxygen", shall be defined as follows:
  - a. When limited in the permit as a monthly minimum, 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.
28. The term "MGD" shall mean million gallons per day.
29. The term "mg/l" shall mean milligrams per liter or parts per million (ppm).
30. The term "µg/l" shall mean micrograms per liter or parts per billion (ppb).

## Final Statement of Basis

for renewal of NPDES Permit Number AR0038822 to discharge to Waters of the State

### 1. PERMITTING AUTHORITY.

The issuing office is:

Arkansas Department of Environmental Quality  
8001 National Drive  
Post Office Box 8913  
Little Rock, Arkansas 72219-8913

### 2. APPLICANT.

The applicant is:

Cooper Tire & Rubber Company  
3500 Washington Road  
Texarkana, AR 71854

### 3. PREPARED BY.

The permit was prepared by:

Alison House  
NPDES Branch, Water Division

### 4. DATE PREPARED.

The permit was prepared on 5/30/2003.

### 5. PERMIT ACTIVITY.

Effective Date: 4/1/1998  
Expiration Date: 03/31/2003

The permittee has submitted a permit renewal application on 10/04/2002 . It is proposed that the current NPDES permit be reissued for a 5-year term in accordance with regulations promulgated at 40 CFR Part 122.46(a).

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

The outfall is located at the following coordinates:

Latitude: 33° 25' 10" Longitude: 94° 00' 10"

The receiving waters named:

unnamed tributary of Nix Creek, thence to Nix Creek, thence to Day's Creek, thence to Sulfur River, thence to the Red River in Segment 1B of the Red River Basin. The receiving stream is a Water of the State classified for secondary contact recreation, raw water source for public, industrial, and agricultural water supplies, propagation of desirable species of fish and other aquatic life, and other compatible uses.

**7. 303d List and Endangered Species Considerations**

**A. 303d List**

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

**B. Endangered Species:**

No comments were received from the U.S. Fish and Wildlife Service (USF&WS). Therefore; no permit action is needed.

**8. OUTFALL AND TREATMENT PROCESS DESCRIPTION.**

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

Outfall 001:

Average Flow: 0.201 MGD, based on the highest monthly average flow during the last two years.

Type of treatment: None.

Discharge Description: stormwater.

**9. APPLICANT ACTIVITY.**

The applicant's activities are the operation of an automobile and light truck tire manufacturing facility.

**10. SEWAGE SLUDGE PRACTICES.**

The discharge consists of stormwater only. No sludge is generated by this facility.

**11. PERMIT CONDITIONS.**

The Arkansas Department of Environmental Quality has made a tentative determination to issue a permit for the discharge described in the application. Permit requirements are based on NPDES regulations (40 CFR Parts 122, 124, and Subchapter N) and regulations

promulgated pursuant to the Arkansas Water and Air Pollution Control Act (Act 472 of 1949, as amended, Ark. Code Ann. 8-4-101 et. seq.).

a. **Interim Effluent Limitations**

Outfall 001-stormwater

i. **Conventional and/or Toxic Pollutants**

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	N/A	N/A	two/month	estimated
Chemical Oxygen Demand (COD)	N/A	N/A	50	75	two/month	grab
Biochemical Oxygen Demand (BOD5)	N/A	N/A	Report	Report	two/month	grab
Total Suspended Solids (TSS)	N/A	N/A	20	30	two/month	grab
Zinc, Total	N/A	N/A	Report, µg/l	Report, µg/l	once/month	3-hr composite
Oil and Grease (O & G)	N/A	N/A	10	15	two/month	grab
pH	N/A	N/A	<u>Minimum</u> 6 s.u.	<u>Maximum</u> 9 s.u.	two/month	grab
<b><u>Whole Effluent Lethality (48-hr NOEC) 22414</u></b>			<u>30-day Avg Min</u> not < 100%	<u>48-Hr Min</u> not < 100%	Once/quarter	24-hr composite
<b><u>Pimephales promelas (Acute)</u></b>			<u>48-Hr Minimum</u>			
Pass/Fail Lethality (48-Hr NOEC) TEM6C			Report (Pass=0/Fail=1)		Once/quarter	24-hr composite
Survival (48-Hr NOEC) TOM6C			Report%		Once/quarter	24-hr composite
<b><u>Daphnia pulex (Acute)</u></b>			<u>48-Hr Minimum</u>			
Pass/Fail Lethality (48-Hr NOEC) TEM3D			Report (Pass=0/Fail=1)		Once/quarter	24-hr composite
Survival (48-Hr NOEC) TOM3D			Report%		Once/quarter	24-hr composite

ii. **Solids and Foam:** 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

b. **Final Effluent Limitations**

Outfall 001-stormwater

i. **Conventional and/or Toxic Pollutants**

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	N/A	N/A	two/month	estimated
Chemical Oxygen Demand (COD)	N/A	N/A	50	75	two/month	grab
Biochemical Oxygen Demand (BOD5)	N/A	N/A	Report	Report	two/month	grab
Total Suspended Solids (TSS)	N/A	N/A	20	30	two/month	grab
Zinc, Total (Dec-May) (Jun-Nov)	N/A N/A	N/A N/A	200 µg/l 116 µg/l	402 µg/l 232 µg/l	once/month once/month	3-hr composite 3-hr composite
Oil and Grease (O & G)	N/A	N/A	10	15	two/month	grab
pH	N/A	N/A	<u>Minimum</u> 6 s.u.	<u>Maximum</u> 9 s.u.	two/month	grab
<b><u>Whole Effluent Lethality</u></b> <b>(48-hr NOEC) 22414</b>			<u>30-day Avg Min</u> not < 100%	<u>48-Hr Min</u> not < 100%	Once/quarter	24-hr composite
<b><u>Pimephales promelas (Acute)</u></b> Pass/Fail Lethality (48-Hr NOEC) TEM6C Survival (48-Hr NOEC) TOM6C			<u>48-Hr Minimum</u> Report (Pass=0/Fail=1) Report%		Once/quarter Once/quarter	24-hr composite 24-hr composite
<b><u>Daphnia pulex (Acute)</u></b> Pass/Fail Lethality (48-Hr NOEC) TEM3D Survival (48-Hr NOEC) TOM3D			<u>48-Hr Minimum</u> Report (Pass=0/Fail=1) Report%		Once/quarter Once/quarter	24-hr composite 24-hr composite

- ii. **Solids and Foam:** 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.

12. BASIS FOR PERMIT CONDITIONS.

The following is an explanation of the derivation of the conditions of the permit and the reasons for them or, in the case of notices of intent to deny or terminate, reasons suggesting the tentative decisions as required under 40 CFR 124.7 (48 FR 1413, April 1, 1983).

**A. Technology-Based versus Water Quality-Based Effluent Limitations and Conditions**

Following regulations promulgated at 40 CFR Part 122.44 (1) (2) (ii), the permit limits are based on either technology-based effluent limits pursuant to 40 CFR Part 122.44 (a) or on State water quality standards and requirements pursuant to 40 CFR Part 122.44 (d), whichever are more stringent.

**B. Technology-Based Effluent Limitations and/or Conditions**

(1) **General Comments**

Discharges from facilities of this type are not covered by Federal Effluent Limitations Guidelines.

(2) **Stormwater runoff**

Effluent limitations guidelines have not been promulgated for discharges of this sort. Therefore, under the authority of Section 402 (a) (1) of the Clean Water Act and State laws, the State has developed a permit on a case-by-case basis. Stormwater pollution prevention plan requirements are included. Additionally, COD, and TSS concentration limits have been continued from the previous permit. TOC limits have been replaced with BOD5 report requirements based on 40 CFR 122.44(1)(2)(i)(B)(1) and does not violate the anti-backsliding provision.

**C. State Water Quality Numerical Standards Based Limitations**

(1) **Conventional and Non-Conventional Pollutants**

The water quality-based limits for Oil and Grease and pH have been based on the current NPDES permit, and 40 CFR Part 122.44(l).

**D. Toxics Pollutants-Priority Pollutant Scan (PPS)**

(1) **General Comments**

Effluent limitations and/or conditions established in the permit are in compliance with the Arkansas Water Quality Standards and the applicable Water Quality Management Plan.

(2) **Post Third Round Policy and Strategy**

Section 101 of the Clean Water Act(CWA) states that "...it is the national policy that the discharge of toxic pollutants in toxic amounts be prohibited...". To insure that the CWA's prohibitions on toxic discharges are met, EPA has issued a "Policy for the Development

of Water Quality-Based Permit Limitations by 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. The Regional policy and strategy are designed to insure 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 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.

### (3) Implementation

The State of Arkansas is currently implementing EPA's Post Third-Round Policy in conformance with the EPA Regional strategy. The 5-year NPDES permits contain technology-based effluent limitations reflecting the best controls available. Where these technology-based permit limits do not protect water quality or the designated uses, or where there are no applicable technology-based limits, additional water quality-based effluent limitations and/or conditions are included in the NPDES permits. State narrative and numerical water quality standards from the Regulation No. 2 are used in conjunction with EPA criteria and other available toxicity information to determine the adequacy of technology-based permit limits and the need for additional water quality-based controls.

### (4) Priority Pollutant Scan

In accordance with the regional policy ADEQ has reviewed and evaluated the effluent in evaluating the potential toxicity of each analyzed pollutant:

- a. The results were evaluated and compared to EPA's Minimum Quantification Levels (MQLs) to determine the potential presence of a respective toxic pollutant. Those pollutants which are greater than or equal to the MQLs are determined to be reasonably present in the effluent and an evaluation of their potential toxicity is necessary.
- b. Those pollutants with one datum shown as "non-detect" (ND), providing the level of detection is equal to or lower than MQL are determined to be not potentially present in the effluent and eliminated from further evaluation.
- c. Those pollutants with a detectable value even if below the MQL are determined to be reasonably present in the effluent and an evaluation of their potential toxicity is necessary.
- d. For those pollutants with multiple data values and all values are determined to be non-detect, therefore, no further evaluation is necessary. However, where data set includes some detectable concentrations and some values as ND, one-half of the detection level is used for those values below the level of detection to calculate the geometric mean of the data set.

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, Reg. No. 2 and with the aquatic toxicity, human health, and drinking water criteria obtained from the "Quality Criteria for Water, 1986 (Gold Book)". The following expression was used to calculate the pollutant instream waste concentration(IWC):

$$IWC = ((C_e \times Q_e) + (C_b \times Q_b)) / (Q_e + Q_b)$$

where:

IWC = instream concentration of pollutant after mixing with receiving stream ( $\mu\text{g/l}$ )

$C_e$  = pollutant concentration in effluent ( $\mu\text{g/l}$ )

$Q_e$  = effluent flow of facility (cfs)

$C_b$  = background concentration of pollutant in receiving stream ( $\mu\text{g/l}$ )

$Q_b$  = background flow of receiving stream (cfs)

The following values were used in the IWC calculations:

$C_e$  = varies with pollutant. A single value from the Priority Pollutant Screen (PPS) submitted by the permittee as part of the NPDES permit application or the geometric mean of a group of data points (less than 20 data points) is multiplied by a factor of 2.13. This factor is based on EPA's Region VI procedure (See attachment IV of Continuing Planning Process (CPP)) to extrapolate limited data sets to better evaluate the potential toxicity for higher effluent concentrations to exceed water quality standards. This procedure employs a statistical approach which yields an estimate of a selected upper percentile value (the 95th percentile) of an effluent data set which would be expected to exceed 95% of effluent concentrations in a discharge. If 20 or more data points during the last two years are available, do not multiply by 2.13, but instead use the maximum reported values.

$Q_e$  = 0.201 MGD = 0.31 cfs, based on highest monthly average flow from the industry during the last two (2) years

$C_b$  = 0  $\mu\text{g/l}$

$Q_b$  = (See below):

**Note:** In accordance with Regulation 2, Section 2.106, the seasonal fishery critical flow is applicable in this case. For the months of December-May, the critical flow is  $1 - Q_e$  (cfs), which would calculate to be 0.69 cfs. The critical flow for the months of June-November is equal to the 7Q10 of the receiving stream, which is 0 cfs.



e. Aquatic Toxicity

**Chronic Toxicity:** Flow (Dec-May) = 0.46 cfs; Flow(June-Nov) = 0 cfs; for comparison with chronic aquatic toxicity. This flow is **67** percent of the critical flow for the receiving stream. The critical flow for Dec-May is equal to 0.69 cfs, based on Regulation 2, Section 2.106. The critical flow for Jun-Nov is equal to the 7Q10 of the receiving stream, which is 0 cfs is based on "Identification and Classification of Perennial Stream of Arkansas", Arkansas Geological Commission Map.

**Acute Toxicity:** Flow (Dec-May) = 0.23 cfs; Flow(June-Nov) = 0 cfs, for comparison with acute aquatic toxicity. This flow is **33** percent of the critical flow.

f. Bioaccumulation

i. Flow (year-round) = 0 cfs, for comparison with bioaccumulation criteria. This flow is the long term average (LTA) of the receiving stream which is based on "Identification and Classification of Perennial Stream of Arkansas", Arkansas Geological Commission Map.

g. Drinking Water

i. Flow (Dec-May) = 0.69 cfs; Flow(June-Nov) = 0 cfs, for comparison with drinking water criteria. For Dec-May, this is the seasonal fishery critical flow; for Jun-Nov, this is the 7Q10 for the receiving stream.

The following values were used to determine limits for the pollutants:

Hardness = 31 mg/l, based on attachment VI of CPP.

pH = 5.5 s.u., based on compliance data from "Arkansas Water Quality Inventory Report"305(b).

(5) Water Quality Standards for Metals and Cyanide

Standards for Chromium (VI), Mercury, Selenium, and Cyanide are expressed as a function of the pollutant's water-effect ratio (WER), while standards for cadmium, chromium (III), copper, lead, nickel, silver, and zinc are expressed as a function of the pollutant's water-effect ratio, and as a function of hardness.

The **Water-effect ratio (WER)** is assigned a value of 1.0 unless scientifically defensible study clearly demonstrates that a value less than 1.0 is necessary or a value greater than 1.0 is sufficient to fully protect the designated uses of the receiving stream from the toxic effects of the pollutant.

The WER approach compares bioavailability and toxicity of a specific pollutant in receiving water and in laboratory test water. It involves running toxicity tests for at least two species, measuring LC50 for the pollutant using the local receiving water collected from the site where the criterion is being implemented, and laboratory toxicity testing water made comparable to the site water in terms of chemical hardness. The ratio between site water and lab water LC50 is used to adjust the national acute and chronic criteria to site specific values.

**(6) Conversion of Dissolved Metals Criteria for Aquatic Life to Total Recoverable Metal**

Metals criteria established in Regulation No. 2 for aquatic life protection are based on dissolved metals concentrations and hardness values (See Page 6 of **Attachment 1**). However, Federal Regulations cited at 40 CFR 122.45(c) require that effluent limitations for metals in NPDES permits be expressed as total recoverable (See Pages 1 and 6 of **Attachment 1**). Therefore, a dissolved to the total recoverable metal conversion must be implemented. This involves determining a linear partition coefficient for the metal of concern and using this coefficient to determine the fraction of metal dissolved, so that the dissolved metal ambient criteria may be translated to a total effluent limit. The formula for converting dissolved metals to total recoverable metals for streams and lakes are provided in **Attachment 2** and Region 6 Implementation Guidance for Arkansas Water Quality Standards promulgated at 40 CFR 131.36.

**(7) Results of the comparison of the submitted information with the appropriate water quality standards and criteria**

The following pollutants were determined to be present in the effluent as reported by the permittee.

Pollutant	Concentration Reported, $\mu\text{g/l}$	MQL, $\mu\text{g/l}$
Copper, Total	4.24	10
Lead, Total	1.41	5
Zinc, Total	154	20

(a) **Aquatic Toxicity**

(i) **Pollutants with numerical water quality standards**

ADEQ has determined from the information submitted by the permittee that there is a reasonable potential for the discharge to cause an instream excursion above the acute and/or chronic numeric standards as specified in the Interim Final Rule published in the Federal Register on May 4, 1995 and/or Arkansas Water Quality Standards, Reg. No. 2 (See **Attachment 1**.)

ADEQ has identified the following toxicants in the discharge in amounts which could potentially have a toxic impact on the receiving stream:

Chronic Aquatic Toxicity Results				
Pollutant	C <sub>e</sub> , µg/l	C <sub>e</sub> X 2.13	IWC, µg/l	AWQS, µg/l
Zinc, Total (Dec-May)	154	328	132	119.5
(Jun-Nov)	154	328	328	119.5

Acute Aquatic Toxicity Results				
Pollutant	C <sub>e</sub> , µg/l	C <sub>e</sub> X 2.13	IWC, µg/l	AWQS, µg/l
Zinc, Total (Dec-May)	154	328	189	130.9
(Jun-Nov)	154	328	328	130.9

IWC's have been calculated in the manner described on page 7 of the Statement of Basis.

### Permit Action

Under Federal Regulation 40 CFR 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 above have been derived in a manner consistent with the Technical Support Document (TSD) for Water Quality-based Toxics Control (EPA, March 1991), the State's implementations procedures, and 40 CFR 122.45(c).

### Permit Limit Determination

The instream waste load allocation (WLA), which is the level of effluent concentration that would comply with the water quality standard (WQS) of the receiving stream, is calculated for both chronic and acute WLA using the following equations:

$$WLA_c = (WQS \times (Q_d + Q_b) - Q_b \times C_b) / Q_d$$

where:

- WLA<sub>c</sub> = chronic waste load allocation (µg/l)
- Q<sub>d</sub> = discharge flow (cfs)
- Q<sub>b</sub> = 0.67 X 7Q10 (cfs)
- C<sub>b</sub> = background concentration (µg/l)
- WQS = chronic aquatic toxicity standards (µg/l)

and;

$$WLA_a = (WQS \times (Q_d + Q_b) - Q_b \times C_b) / Q_d$$

where:

- WLA<sub>a</sub> = acute waste load allocation (μg/l)
- Q<sub>d</sub> = discharge flow (cfs)
- Q<sub>b</sub> = 0.33 X 7Q10 (cfs)
- C<sub>b</sub> = background concentration (μg/l)
- WQS = acute aquatic toxicity standards (μg/l)

The long term average (LTA) effluent concentration is then calculated based on the chronic and acute WLA as follows:

$$LTA_c = 0.72 \times WLA_c$$

$$LTA_a = 0.57 \times WLA_a$$

The lowest of these two (2) values is selected as being the limiting LTA. The limiting LTA is then used to calculate the monthly average (AML) and daily maximum (DML) for the final limits. AML and DML are calculated as follows:

$$AML = 1.55 \times \text{Limiting LTA}$$

$$DML = 3.11 \times \text{Limiting LTA}$$

Limits included in the permit are as follows:

Arkansas Numerical Aquatic Toxicity Limits		
Parameter	AML*, μg/l	DML*, μg/l
Zinc, Total		
(Dec-May)	200	402
(Nov-Apr)	116	232
*See Attachment 4 for calculations		

b. Human Health (Bioaccumulation) Limits

i. Pollutants with numerical water quality standards

ADEQ has determined from the information submitted by the permittee that there is not a reasonable potential for the discharge to cause an instream excursion above the state numeric bioaccumulation standards as specified in Section 6(H) of the AWQS, Regulation No. 2 (See Attachment 1.)

ii. **Drinking Water Supply Protection**

ADEQ has determined from the information submitted by the permittee that there is not a reasonable potential for the discharge to cause an instream excursion above the drinking water criteria as specified in the Gold Book.

E. **Final Limitations**

The following effluent limitations or "report" requirements were placed in the permit based on the more stringent of the technology-based, water quality-based or previous NPDES permit limitations:

Parameter	Water Quality-Based		Technology-Based/BPJ		Previous NPDES Permit		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	75	50	75	50	75
BOD5	N/A	N/A	Report	Report	N/A	N/A	Report	Report
TSS	N/A	N/A	20	30	20	30	20	30
Zinc, Total (µg/l)								
(Dec-May)	200	402	N/A	N/A	N/A	N/A	200	402
(Nov-Apr)	116	232	N/A	N/A	N/A	N/A	116	232
O & G	10	15	N/A	N/A	10	15	10	15
pH	6-9 s.u.		N/A		6-9 s.u.		6-9 s.u.	

F. **Biomonitoring**

A. **Post Third Round Policy and Strategy**

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 biomonitoring 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.

B. Implementation

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

Whole effluent toxicity testing conducted by the permittee has shown potential ambient toxicity to be the result of the permittee's discharge to receiving stream or water body, at the appropriate instream critical dilution. Pursuant to 40 CFR 122.44(d)(1)(v), ADEQ has determined from the permittee's self reporting that the discharge from this facility does have the reasonable potential to cause, or contribute to an instream excursion above the narrative standard within the applicable State Water Quality Standards, in violation of Section 101(a)(3) of the Clean Water Act. Therefore, the permit must establish both monthly average and 48-hr minimum effluent limitations for lethality following Regulations promulgated by 40 CFR 122.44(d)(1)(v). These effluent limitations for lethality (48-hr NOEC) and testing frequency are continued from the previous permit at outfall 001. (See Attachment 5). The daily average lethality (48-hr NOEC) and 48-hr minimum lethality (48-hr NOEC) value shall not be less than **100%** (Critical Dilution) effluent for outfall **001**.

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

**TOXICITY TESTS**

**FREQUENCY**

Acute Biomonitoring

Once/quarter

The discharge consists of stormwater only and the discharge is not continuous, therefore acute biomonitoring requirements are appropriate and will be included in the permit.

The calculations for dilution used for the acute biomonitoring are as follows:

$$\text{Critical Dilution (CD)} = (Q_d / (Q_d + Q_b)) \times 100$$

$$Q_d = \text{Average Flow} = 2.16 \text{ MGD} = 3.3 \text{ Cfs}$$

$$Q_b = 0 \text{ Cfs}$$

$$Q_b = \text{Background flow} = 0.1 \times (0.25/0.67) \times 7Q_{10} =$$

$$\text{CD} = ((3.3) / (3.3 + 0)) \times 100 = 100\%$$

A minimum of five effluent dilutions in addition to an appropriate control (0%) are to be used in the toxicity tests. These additional effluent concentrations are 32%, 42%, 56%, 75%, and 100% (Please see **Attachment 5**). The low-flow effluent concentration (critical dilution) is defined as 100% effluent based on a 0 cfs 7Q<sub>10</sub> flow of the receiving stream.

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/600/4-89/001 and shall be submitted as an attachment to the Discharge Monitoring Report (DMR).

C. Administrative Records

The following information summarized toxicity test failures submitted by the permittee during the term of the current permit at outfall **001**: (Please see Attachment 5)

G. Sample Type and Sampling Frequency

Requirements for sample type and sampling frequency for BOD<sub>5</sub>, COD, TSS, O&G, and pH were based on the previous permit and recommended frequencies for self-monitoring of discharges within the flow of 0.1 to 0.5 MGD. Requirements for sample type and sampling frequency for Zinc were based on the judgment of the permit writer.

H. Changes from the previously issued permit

1. Sedimentation pond treatment system no longer exists.
2. Facility average flow has changed.
3. WET language has been revised.
4. Part III has been revised.
5. TOC requirements have been deleted.
6. Stormwater PPP language has been revised.
7. Schedule of Compliance has been included.

8. Zinc Interim and Final limits have been included.
9. Metals language has been included.
10. Zinc sampling language has been included.
11. Facility location description has changed.
12. BOD report requirements have been included.

### 13. SCHEDULE OF COMPLIANCE.

Compliance with final effluent limitations is required by the following schedule:

#### Interim Limits:

Compliance is required on the effective date of the permit.

#### Final Limits:

The permittee shall submit progress reports to the NPDES Enforcement Section addressing the progress towards attaining the final effluent limits for Zinc at Outfall 001 according to the following schedule:

<u>ACTIVITY</u>	<u>DUE DATE</u>
Progress Report	one (1) year from effective date of permit
Progress Report	two (2) years from effective date of permit
Achieve Final Limits	three (3) years from effective date of permit

Compliance with Zinc final limits is required three (3) years from the effective date of the permit.

The permittee has the option to perform a stream study on the receiving stream. If an approved study, showing that the 7Q10 is greater than 0 cfs, is submitted to the Department prior to the deadline for compliance with Final Limits, the permit may be reopened to re-evaluate permit limits for Zinc.

The permittee may conduct a wasteload allocation study for the receiving stream to establish discharge limitations for COD and TSS based on Arkansas Water Quality Standards, Regulation No. 2. If an approved study indicates that less stringent effluent limitations and/or Water Quality based limits are appropriate, the permit will be reopened for a major modification and effluent limitations will be revised.



ATTACHMENT 1 (December-May)

Priority Pollutant Scan Calculation

Permittee Cooper Tire Company  
 Receiving Stream unnamed trib. of Mix Creek  
 Permit number AFR0038822  
 Flow (Qe) 0.20 MGD  
 Flow (Qo) 0.31 CFS  
 7Q10 = 0.69 CFS  
 Long Term Average = 0.00 CFS  
 Using Diffusers No  
 pH = 7.35  
 Total Hardness 31.00 mg/l  
 TSS 5.5 mg/l  
 (% of 7010 for Chronic) 0.67  
 (% of 7010 for Acute) 0.33

Qe for:  
 Municipalities = Design Flow  
 Industrial Discharges = Highest monthly average flow of the last two years

TSS for:  
 Gulf Coastal 5.5 mg/l  
 Ark River Valley = 3 mg/l  
 Boston Mount = 1.3 mg/l  
 Delta = 8 mg/l

Quach Mount = 2 mg/l  
 Ozark Highlands = 2.5 mg/l  
 Delta = 8 mg/l

Total Hardness for:  
 Arkansas River = 125 mg/l  
 Ouachita River = 28 mg/l  
 Red River = 211 mg/l  
 St. Francis River = 103 mg/l

For the following receiving enter 0.06 in cell "C17": White River = 116 mg/l

Mississippi, Arkansas, Red River, Gulf Coastal = 31 mg/l  
 White (Below confluence with Black River) Ozark Highlands = 148 mg/l  
 Ouachita (below Confluence with Little Miss. River Boston Mount = 25 mg/l  
 Delta = 81 mg/l

Upstream Flow (Qb) = 0.46 (Chronic) 0.23 (Acute)  
 Pollutant Concentration Upstream (Cb) = 0 ug/l  
 Water Effect Ratio(WER) = 1.00  
 Cancer Risk Level: 1.00E-05 (STATE); 1.00E-6 (EPA)

IWC = Instream concentration of pollutant after mixing with the receiving stream  
 IWC = (Ce\*Qe + Cb\*Qb)/(Qb + Qe)  
 Ce = Pollutant concentration in the effluent (ug/l) = Reported value as Total Recov

Reported Value (Ce) (ug/l)	Ce*2.13 (ug/l)	EPA Acute (ug/l)	STATE Acute (ug/l)	IWC Acute (ug/l)	EPA Chronic (ug/l)	STATE Chronic (ug/l)	IWC Chronic (ug/l)	EPA Bioacc. (ug/l)	STATE Bioacc. (ug/l)	IWC Bioacc. (ug/l)	Violation of Acute	Chr	Bio
0.00	0.00	9000	.....	0.00	1600	.....	0.00	4300	.....	0.00	NO	NO	NO
0.00	0.00	633.81	.....	0.00	334.51	.....	0.00	1.40	.....	0.00	NO	NO	NO
0.00	0.00	130.00	.....	0.00	5.30	.....	0.00	.....	0.076	0.00	NO	NO	NO
0.00	0.00	4.37	.....	0.00	1.82	.....	0.00	.....	.....	0.00	NO	NO	NO
0.00	0.00	1006.35	.....	0.00	326.45	.....	0.00	.....	.....	0.00	NO	NO	NO
0.00	0.00	15.71	.....	0.00	10.58	.....	0.00	.....	.....	0.00	NO	NO	NO
4.24	9.03	14.79	.....	5.21	10.93	.....	3.63	.....	.....	9.03	NO	NO	NO
1.41	3.00	87.29	.....	1.73	3.40	.....	1.21	.....	.....	3.00	NO	NO	NO
0.00	0.00	6.70	.....	0.00	0.0120	.....	0.00	0.15	.....	0.00	NO	NO	NO
0.00	0.00	1061.45	.....	0.00	117.88	.....	0.00	4600	.....	0.00	NO	NO	NO
0.00	0.00	20.00	.....	0.00	5.00	.....	0.00	.....	.....	0.00	NO	NO	NO
0.00	0.00	1.5097	.....	0.00	.....	.....	0.00	.....	.....	0.00	NO	NO	NO
0.00	0.00	1400	.....	0.00	40.00	.....	0.00	6.30	.....	0.00	NO	NO	NO
154.00	328.02	130.87	.....	189.25	119.50	.....	131.81	.....	.....	328.02	Yes	Yes	NO
0.00	0.00	.....	.....	.....	.....	.....	.....	.....	.....	0.00	NO	NO	NO
0.00	0.00	22.36	.....	0.00	5.20	.....	0.00	220000	.....	0.00	NO	NO	NO

METALS and CYANIDE

1. Antimony Total
2. Arsenic Total
3. Beryllium Total
4. Cadmium Total\*
5. Chromium (Tri)\*
6. Chromium (Hex)
7. Chromium (Hex)
8. Copper Total\*
9. Lead Total\*
10. Mercury Total\*
12. Nickel Total\*
13. Selenium Total
14. Silver Total\*
15. Thallium Total
16. Zinc Total\*
129. Phenols, Total
17. Cyanide Total

\* See linear partition coefficient (Page 6)

Reported Ce\*2.13 EPA STATE IWC EPA STATE IWC EPA STATE IWC Violation of

	Value (Ce) (ug/l)	(ug/l)	Acute (ug/l)	Acute (ug/l)	Acute (ug/l)	Chronic (ug/l)	Chronic (ug/l)	Chronic (ug/l)	Bioacc. (ug/l)	Bioacc. (ug/l)	Bioacc. (ug/l)	Acute Chr	Bio
DIOXIN													
18. 2-3-7-8-TCDD	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	1.40E-07	1.00E-09	0.00	NO	NO
VOLATILE COMPOUNDS													
19. Acrolein	0.00	0.00	68.00	0.00	0.00	21.00	0.00	0.00	780.00	0.00	0.00	NO	NO
20. Acrylonitrile	0.00	0.00	7550	0.00	0.00	2600	0.00	0.00	6.60	0.00	0.00	NO	NO
21. Benzene	0.00	0.00	5300	0.00	0.00	0.00	0.00	0.00	710.00	0.00	0.00	NO	NO
22. Bromoform	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3600.00	0.00	0.00	NO	NO
23. Carbon T Tet	0.00	0.00	35200	0.00	0.00	0.00	0.00	0.00	44.00	0.00	0.00	NO	NO
24. Chlorobenzene	0.00	0.00	250.00	0.00	0.00	50.00	0.00	0.00	2.10E+04	0.00	0.00	NO	NO
25. Chlorodibromomethane	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	340.00	0.00	0.00	NO	NO
26. Chloroethane	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NO	NO
27. 2-Chloroethylvinyl ether	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NO	NO
28. Chloroform	0.00	0.00	28900	0.00	0.00	1240	0.00	0.00	4700.00	0.00	0.00	NO	NO
29. Dichlorobromomethane	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	220.00	0.00	0.00	NO	NO
30. 1-1-Dichloroethane	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NO	NO
31. 1-2-Dichloroethane	0.00	0.00	118000	0.00	0.00	20000	0.00	0.00	990.00	0.00	0.00	NO	NO
32. 1-1-Dichloroethylene	0.00	0.00	11600	0.00	0.00	0.00	0.00	0.00	32.00	0.00	0.00	NO	NO
33. 1,2-Dichloropropane	0.00	0.00	23000	0.00	0.00	5700	0.00	0.00	0.00	0.00	0.00	NO	NO
34. 1,3-Dichloropropylene	0.00	0.00	6060	0.00	0.00	244.00	0.00	0.00	1700.00	0.00	0.00	NO	NO
35. Ethylbenzene	0.00	0.00	32000	0.00	0.00	0.00	0.00	0.00	29000.00	0.00	0.00	NO	NO
37. Methyl Chloride	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NO	NO
36. Methyl bromide	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4000.00	0.00	0.00	NO	NO
38. Methylene chloride	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16000.00	0.00	0.00	NO	NO
39. 1-1-2-2-Tetrachloroethane	0.00	0.00	9320	0.00	0.00	2400	0.00	0.00	110.00	0.00	0.00	NO	NO
40. Tetrachloroethylene	0.00	0.00	5280	0.00	0.00	840	0.00	0.00	88.50	0.00	0.00	NO	NO
41. Toluene	0.00	0.00	17500	0.00	0.00	0.00	0.00	0.00	2.0E+05	0.00	0.00	NO	NO
42. 1,2-trans-dichloroethylene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NO	NO
44. 1-1-2-Trichloroethane	0.00	0.00	18000	0.00	0.00	9400	0.00	0.00	420.00	0.00	0.00	NO	NO
43. 1-1-1-Trichloroethane	0.00	0.00	18000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NO	NO
45. Trichloroethylene	0.00	0.00	45000	0.00	0.00	21900	0.00	0.00	810.00	0.00	0.00	NO	NO
46. Vinyl Chloride	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5250.00	0.00	0.00	NO	NO



PESTICIDES

	Reported Value (Ce) (ug/l)	Ce*2.13 (ug/l)	EPA Acute (ug/l)	STATE Acute (ug/l)	IWC Acute (ug/l)	EPA Chronic (ug/l)	STATE Chronic (ug/l)	IWC Chronic (ug/l)	EPA Bioacc. (ug/l)	STATE Bioacc. (ug/l)	IWC Bioacc. (ug/l)	Violation of Acute	Chr	Bio
104. Aldrin	0.00	0.00	3.00	3.00	0.00	0.00	0.00	0.00	0.00140	0.00	0.00	NO	NO	NO
105. Alpha-BHC	0.00	0.00	2.00	2.00	0.00	0.00	0.08	0.00	1.300E-01	0.0373	0.00	NO	NO	NO
106. Beta-BHC	0.00	0.00	2.00	2.00	0.00	0.00	0.08	0.00	0.4600	0.00	0.00	NO	NO	NO
107. Gamma-BHC	0.00	0.00	2.00	2.00	0.00	0.00	0.08	0.00	0.6300	0.00	0.00	NO	NO	NO
108. Delta-BHC	0.00	0.00	2.00	2.00	0.00	0.00	0.08	0.00	0.00	0.00	0.00	NO	NO	NO
109. Chlordane	0.00	0.00	2.40	2.40	0.00	0.0043	0.0043	0.00	5.900E-03	0.0050	0.00	NO	NO	NO
110. 4,4'-DDT	0.00	0.00	1.10	1.10	0.00	0.0010	0.0010	0.00	0.0059	0.00	0.00	NO	NO	NO
111. 4,4'-DDE	0.00	0.00	1.10	1.10	0.00	0.0010	0.0010	0.00	0.0084	0.00	0.00	NO	NO	NO
112. 4,4'-DDD	0.00	0.00	1.10	1.10	0.00	0.0019	0.0019	0.00	1.400E-03	0.0012	0.00	NO	NO	NO
113. Dieldrin	0.00	0.00	2.50	2.50	0.00	0.0560	0.0560	0.00	2.00	0.00	0.00	NO	NO	NO
114. Alpha-endosulfan	0.00	0.00	0.22	0.22	0.00	0.0560	0.0560	0.00	2.00	0.00	0.00	NO	NO	NO
115. Beta-endosulfan	0.00	0.00	0.22	0.22	0.00	0.0560	0.0560	0.00	2.00	0.00	0.00	NO	NO	NO
116. Endosulfan sulfate	0.00	0.00	0.22	0.22	0.00	0.0580	0.0580	0.00	2.00	0.00	0.00	NO	NO	NO
117. Endrin	0.00	0.00	0.18	0.18	0.00	0.0023	0.0023	0.00	8.100E-01	0.00	0.00	NO	NO	NO
118. Endrin aldehyde	0.00	0.00	0.18	0.18	0.00	0.0038	0.0038	0.00	0.0021	0.00	0.00	NO	NO	NO
119. Heptachlor	0.00	0.00	0.52	0.52	0.00	0.0038	0.0038	0.00	0.0011	0.00	0.00	NO	NO	NO
120. Heptachlor epoxide	0.00	0.00	0.52	0.52	0.00	0.0038	0.0038	0.00	0.0011	0.00	0.00	NO	NO	NO
121. PCB-1242	0.00	0.00	0.18	0.18	0.00	0.0140	0.0140	0.00	4.500E-04	4.00E-04	0.00	NO	NO	NO
122. PCB-1254	0.00	0.00	0.18	0.18	0.00	0.0140	0.0140	0.00	4.500E-04	4.00E-04	0.00	NO	NO	NO
123. PCB-1221	0.00	0.00	0.18	0.18	0.00	0.0140	0.0140	0.00	4.500E-04	4.00E-04	0.00	NO	NO	NO
124. PCB-1232	0.00	0.00	0.18	0.18	0.00	0.0140	0.0140	0.00	4.500E-04	4.00E-04	0.00	NO	NO	NO
125. PCB-1248	0.00	0.00	0.18	0.18	0.00	0.0140	0.0140	0.00	4.500E-04	4.00E-04	0.00	NO	NO	NO
126. PCB-1260	0.00	0.00	0.18	0.18	0.00	0.0140	0.0140	0.00	4.500E-04	4.00E-04	0.00	NO	NO	NO
127. PCB-1016	0.00	0.00	0.73	0.73	0.00	0.0140	0.0140	0.00	4.500E-04	4.00E-04	0.00	NO	NO	NO
128. Toxaphene	0.00	0.00	0.73	0.73	0.00	0.00020	0.0002	0.00	4.500E-04	0.0063	0.00	NO	NO	NO
130. Chlorpyrifos	0.00	0.00	0.083	0.083	0.00	0.041	0.041	0.00	0.00	0.00	0.00	NO	NO	NO

AWG, Reg. No. 2

Reported Value (C <sub>e</sub> ) (ug/l)	Ce*2.13 (ug/l)	STATE Acute (ug/l)	IWC Acute (ug/l)	STATE Chronic (ug/l)	IWC Chronic (ug/l)	STATE Bioacc. (ug/l)	IWC Bioacc. (ug/l)	Violation of Acute Chr	Bio Chr
0.00	0.00	2.00	0.00	0.08	0.00	0.0373	0.00	NO	NO
0.00	0.00	2.00	0.00	0.08	0.00			NO	NO
0.00	0.00	2.00	0.00	0.08	0.00			NO	NO
0.00	0.00	2.00	0.00	0.08	0.00			NO	NO
0.00	0.00	12.89	0.00	8.14	0.00			NO	NO
0.00	0.00	3.00	0.00					NO	NO
0.00	0.00	2.40	0.00	0.0043	0.00	0.005	0.00	NO	NO
0.00	0.00	1.10	0.00	0.0010	0.00			NO	NO
0.00	0.00	1.10	0.00	0.0010	0.00			NO	NO
0.00	0.00	1.10	0.00	0.0010	0.00			NO	NO
0.00	0.00	2.50	0.00	0.0019	0.00	0.0012	0.00	NO	NO
0.00	0.00	0.22	0.00	0.0560	0.00			NO	NO
0.00	0.00	0.22	0.00	0.0560	0.00			NO	NO
0.00	0.00	0.18	0.00	0.0023	0.00			NO	NO
0.00	0.00	0.18	0.00	0.0023	0.00			NO	NO
0.00	0.00	0.52	0.00	0.0038	0.00			NO	NO
0.00	0.00	0.52	0.00	0.0038	0.00			NO	NO
0.00	0.00	0.73	0.00	0.0002	0.00	0.0063	0.00	NO	NO
0.00	0.00	0.063	0.00	0.0410	0.00			NO	NO
0.00	0.00	4.37	0.00	1.82	0.00			NO	NO
0.00	0.00	15.71	0.00	10.58	0.00			NO	NO
4.24	9.03	14.79	5.21	10.93	3.63			NO	NO
1.41	3.00	87.29	1.73	3.40	1.21			NO	NO
0.00	0.00	6.70	0.00	0.0120	0.00			NO	NO
0.00	0.00	1061.45	0.00	117.88	0.00			NO	NO
0.00	0.00	20.00	0.00	5.00	0.00			NO	NO
0.00	0.00	1509.97	0.00					NO	NO
154.00	328.02	130.87	189.25	119.50	131.81			Yes	Yes
0.00	0.00	1006.35	0.00	326.45	0.00			NO	NO
0.00	0.00	22.36	0.00	5.20	0.00			NO	NO
0.00	0.00					0.076	0.00	NO	NO
0.00	0.00			0.0140	0.00	4.00E-04	0.00	NO	NO
0.00	0.00			0.0140	0.00	4.00E-04	0.00	NO	NO
0.00	0.00			0.0140	0.00	4.00E-04	0.00	NO	NO
0.00	0.00			0.0140	0.00	4.00E-04	0.00	NO	NO
0.00	0.00			0.0140	0.00	4.00E-04	0.00	NO	NO
0.00	0.00			0.0140	0.00	4.00E-04	0.00	NO	NO
0.00	0.00			0.0140	0.00	4.00E-04	0.00	NO	NO
0.00	0.00			0.0140	0.00	4.00E-04	0.00	NO	NO
0.00	0.00			0.0140	0.00	4.00E-04	0.00	NO	NO
0.00	0.00			0.0140	0.00	1E-06	0.00	NO	NO

\* See Linear Partition Coefficient (Page 6)

Linear Partition Coefficients

Metals	K <sub>po</sub>	Streams	a
Arsenic	.....		-0.73
Cadmium	.....		-1.13
Chromium(3)	.....		-0.93
Copper	.....		-0.74
Lead	.....		-0.80
Mercury	.....		-1.14
Nickel	.....		-0.57
Zinc	.....		-0.70
Silver	.....		-1.03

$K_p = K_{po} \times TSS^a$

K<sub>p</sub> = Linear Partition Coefficient  
 TSS = Total Suspended Solids (mg/l)  
 K<sub>po</sub> = found from above table  
 a = found from above table

$C/Ct = 1 / (1 + K_p \times TSS \times 10^{-6})$

C / Ct = Fraction of Metal Dissolved

Metals	K <sub>p</sub>	Streams	C / Ct
Arsenic	138285		0.5680
Cadmium	582707		0.2378
Chromium(3)	688338		0.2089
Copper	294554		0.3617
Lead	715926		0.2025
Mercury	415322		0.3045
Nickel	185434		0.4951
Zinc	379015		0.3242
Silver	414608		0.3048

Total Metal = Dissolved Metal / (C/Ct)

AQUATIC LIFE CRITERIA (DISSOLVED ACUTE VALUES)

Pollutant	Dissolved(ug/l)	Formula
Cadmium	1.04	WER X Conversion Factor* X e <sup>[1.128ln(hardness)]</sup> -3.828
Chromium(III)	210.28	WER X 0.316 X e <sup>[0.819ln(hardness)]</sup> +3.688
Chromium(V)	15.71	WER X 0.982 X 16
Copper	5.64	WER X 0.96 X e <sup>[0.9422ln(hardness)]</sup> -1.464
Lead	17.68	WER X Conversion Factor* X e <sup>[1.273ln(hardness)]</sup> -1.460
Mercury	2.04	WER X 0.85 X 2.4
Nickel	525.50	WER X 0.998 X e <sup>[0.8460ln(hardness)]</sup> +3.3612
Silver	0.4802	WER X 0.85 X e <sup>[1.72ln(hardness)]</sup> -6.52
Zinc	42.43	WER X 0.978 X e <sup>[0.8473ln(hardness)]</sup> +0.8604

\* 1.136672 - [(ln hardness)/(0.041838)]  
 \*\* 1.46203 - [(ln hardness)/(0.145712)]

AQUATIC LIFE CRITERIA (DISSOLVED CHRONIC VALUES)

Pollutant	Dissolved(ug/l)	Formula
Cadmium	0.43	WER X Conversion Factor* X e <sup>[0.7852ln(hardness)]</sup> -3.490
Chromium(II)	68.21	WER X 0.86 X e <sup>[0.819ln(hardness)]</sup> +1.561
Chromium(V)	10.58	WER X 10
Copper	4.17	WER X 0.96 X e <sup>[0.8545ln(hardness)]</sup> -1.465
Lead	0.69	WER X Conversion Factor* X e <sup>[1.273ln(hardness)]</sup> -4.705
Nickel	58.42	WER X 0.997 X e <sup>[0.8460ln(hardness)]</sup> +1.1645
Zinc	38.74	WER X 0.986 X e <sup>[0.8473ln(hardness)]</sup> +0.7614

\* 1.101672 - [(ln hardness)/(0.041838)]  
 \*\* 1.46203 - [(ln hardness)/(0.145712)]

Priority Pollutant Scan Calculation

Permittee Cooper Tire and Rubber Co.  
 Receiving Stream unnamed trib. of Nix Creek  
 Permit number AR00038622  
 Flow (Qe) 0.20 MGD  
 Flow (Qa) 0.31 CFS  
 7Q10 = 0.00 CFS  
 Long Term Average = 0.00 CFS  
 Using Diffusers No  
 pH = 7.35 S.U.  
 Total Hardness 31.00 mg/l  
 TSS 5.5 mg/l  
 (% of 7Q10 for Chronic) 0.67  
 (% of 7Q10 for Acute) 0.33

Design Flow  
 Municipalities = Design Flow  
 Industrial Discharges = Highest monthly average flow of the last two years

TSS for:  
 Gulf Coastal 5.5 mg/l  
 Ark River Valley = 3 mg/l  
 Boston Mount = 1.3 mg/l

Ouach Moun = 2 mg/l  
 Ozark Highlands = 2.5 mg/l  
 Delta = 8 mg/l

Red River = 211 mg/l  
 St. Francis River = 103 mg/l

For the following receiving enter 0.06 in cell "C17": White River = 116 mg/l  
 Arkansas River = 125 mg/l  
 Ouachita River = 28 mg/l

Mississippi, Arkansas, Red River.  
 White (Below confluence with Black River)  
 Ouachita (below Confluence with Little Miss. River Boston Mount = 25 mg/l

Ouachita Mount = 31 mg/l  
 Ark River Valley = 25 mg/l  
 Delta = 81 mg/l

Upstream Flow (Ob) = 0.00 (Chronic) 0.00 (Acute)  
 Pollutant Concentration Upstream (Cb) = 0 ug/l  
 Water Effect Ratio(WER): 1.00  
 Cancer Risk Level: 1.00E-05 (STATE); 1.00E-6 (EPA)

IWC = Instream concentration of pollutant after mixing with the receiving stream  
 IWC = (Ca\*Qa + Cb\*Qb)/(Qa + Qb)  
 Ca = Pollutant concentration in the effluent (ug/l) = Reported value as Total Recov

METALS and CYANIDE

	Reported Value (ug/l)	Ce*2.13 (ug/l)	EPA Acute (ug/l)	STATE Acute (ug/l)	IWC Acute (ug/l)	EPA Chronic (ug/l)	STATE Chronic (ug/l)	IWC Chronic (ug/l)	EPA Bioacc. (ug/l)	STATE Bioacc. (ug/l)	IWC Bioacc. (ug/l)	Violation of Acute Chr	Violation of Bio
1. Antimony Total	0.00	0.00	9000	.....	0.00	1600	.....	0.00	4300	.....	0.00	NO	NO
2. Arsenic Total	0.00	0.00	633.81	.....	0.00	334.51	.....	0.00	1.40	.....	0.00	NO	NO
3. Beryllium Total	0.00	0.00	130.00	.....	0.00	5.30	.....	0.00	0.076	.....	0.00	NO	NO
4. Cadmium Total*	0.00	0.00	1.0000000000E+09	4.37	0.00	.....	1.82	0.00	.....	.....	0.00	NO	NO
6. Chromium (Tri)*	0.00	0.00	1.0000000000E+09	1006.35	0.00	.....	326.45	0.00	.....	.....	0.00	NO	NO
7. Chromium (hex)	0.00	0.00	1.0000000000E+09	15.71	0.00	.....	10.58	0.00	.....	.....	0.00	NO	NO
8. Copper Total*	4.24	8.00	1.0000000000E+09	14.79	8.00	.....	10.93	8.00	.....	.....	8.00	NO	NO
9. Lead Total*	1.41	3.00	1.0000000000E+09	87.29	3.00	.....	3.40	3.00	.....	.....	3.00	NO	NO
10. Mercury Total*	0.00	0.00	1.0000000000E+09	6.70	0.00	.....	0.0120	0.00	0.15	.....	0.00	NO	NO
12. Nickel Total*	0.00	0.00	1.0000000000E+09	1061.45	0.00	.....	117.86	0.00	4600	.....	0.00	NO	NO
13. Selenium Total	0.00	0.00	1.0000000000E+09	20.00	0.00	.....	5.00	0.00	.....	.....	0.00	NO	NO
14. Silver Total*	0.00	0.00	1.0000000000E+09	1.5097	0.00	.....	.....	0.00	.....	.....	0.00	NO	NO
15. Thallium Total	0.00	0.00	1400	.....	0.00	40.00	.....	0.00	6.30	.....	0.00	NO	NO
16. Zinc Total*	154.00	328.02	1.0000000000E+09	130.87	328.02	.....	119.50	328.02	.....	.....	328.02	Yes	Yes
129. Phenols Total	0.00	0.00	1.0000000000E+09	.....	.....	.....	.....	.....	.....	.....	0.00	NO	NO
17. Cyanide Total	0.00	0.00	1.0000000000E+09	22.36	0.00	.....	5.20	0.00	220000	.....	0.00	NO	NO

\* See linear partition coefficient (Page 6)

Reported Ce\*2.13 EPA STATE IWC EPA STATE IWC EPA STATE IWC Violation of





Reported Value (Ce)	Ce 2.13 (ug/l)	EPA Acute (ug/l)	STATE Acute (ug/l)	IWC Acute (ug/l)	EPA Chronic (ug/l)	STATE Chronic (ug/l)	IWC Chronic (ug/l)	EPA Bioacc. (ug/l)	STATE Bioacc. (ug/l)	IWC Bioacc. (ug/l)	Violation of Acute Chr	Bio
0.00	0.00	3.00	3.00	0.00	0.00	0.00	0.00	0.00140	0.00	0.00	NO	NO
0.00	0.00	1000000000.00	2.00	0.00	0.00	0.08	0.00	1.300E-01	0.0373	0.00	NO	NO
0.00	0.00	1000000000.00	2.00	0.00	0.00	0.08	0.00	0.4600	0.00	0.00	NO	NO
0.00	0.00	2.00	2.00	0.00	0.08	0.08	0.00	0.6300	0.00	0.00	NO	NO
0.00	0.00	1000000000.00	2.00	0.00	0.00	0.08	0.00	0.00	0.00	0.00	NO	NO
0.00	0.00	2.40	2.40	0.00	0.0043	0.0043	0.00	5.900E-03	0.0050	0.00	NO	NO
0.00	0.00	1.10	1.10	0.00	0.0010	0.0010	0.00	0.0059	0.00	0.00	NO	NO
0.00	0.00	1000000000.00	1.10	0.00	0.0010	0.0010	0.00	0.0059	0.00	0.00	NO	NO
0.00	0.00	1000000000.00	1.10	0.00	0.0010	0.0010	0.00	0.0084	0.00	0.00	NO	NO
0.00	0.00	2.50	2.50	0.00	0.0019	0.0019	0.00	1.400E-03	0.0012	0.00	NO	NO
0.00	0.00	0.22	0.22	0.00	0.0560	0.0560	0.00	2.00	0.00	0.00	NO	NO
0.00	0.00	0.22	0.22	0.00	0.0560	0.0560	0.00	2.00	0.00	0.00	NO	NO
0.00	0.00	1000000000.00	0.22	0.00	0.0023	0.0023	0.00	2.00	0.00	0.00	NO	NO
0.00	0.00	0.18	0.18	0.00	0.0023	0.0023	0.00	8.100E-01	0.00	0.00	NO	NO
0.00	0.00	1000000000.00	0.18	0.00	0.0023	0.0023	0.00	8.100E-01	0.00	0.00	NO	NO
0.00	0.00	0.52	0.52	0.00	0.0038	0.0038	0.00	0.0021	0.00	0.00	NO	NO
0.00	0.00	0.52	0.52	0.00	0.0038	0.0038	0.00	0.0011	0.00	0.00	NO	NO
0.00	0.00	1000000000.00	0.18	0.00	0.0140	0.0140	0.00	4.500E-04	4.00E-04	0.00	NO	NO
0.00	0.00	1000000001.00	0.18	0.00	0.0140	0.0140	0.00	4.500E-04	4.00E-04	0.00	NO	NO
0.00	0.00	1000000002.00	0.18	0.00	0.0140	0.0140	0.00	4.500E-04	4.00E-04	0.00	NO	NO
0.00	0.00	1000000003.00	0.18	0.00	0.0140	0.0140	0.00	4.500E-04	4.00E-04	0.00	NO	NO
0.00	0.00	1000000004.00	0.18	0.00	0.0140	0.0140	0.00	4.500E-04	4.00E-04	0.00	NO	NO
0.00	0.00	1000000005.00	0.18	0.00	0.0140	0.0140	0.00	4.500E-04	4.00E-04	0.00	NO	NO
0.00	0.00	1000000006.00	0.18	0.00	0.0140	0.0140	0.00	4.500E-04	4.00E-04	0.00	NO	NO
0.00	0.00	0.73	0.73	0.00	0.0020	0.0020	0.00	4.500E-04	4.00E-04	0.00	NO	NO
0.00	0.00	0.083	0.083	0.00	0.041	0.041	0.00	4.500E-04	0.0063	0.00	NO	NO
0.00	0.00	0.083	0.083	0.00	0.041	0.041	0.00	4.500E-04	0.0063	0.00	NO	NO

PESTICIDES

- 104. Aldrin
- 105. Alpha-BHC
- 106. Beta-BHC
- 107. Gamma-BHC
- 108. Delta-BHC
- 109. Chlordane
- 110. 4,4'-DDT
- 111. 4,4'-DDE
- 112. 4,4'-DDD
- 113. Dieldrin
- 114. Alpha-endosulfan
- 115. Beta-endosulfan
- 116. Endosulfan sulfate
- 117. Endrin
- 118. Endrin aldehyde
- 119. Heptachlor
- 120. Heptachlor epoxides
- 121. PCB-1242
- 122. PCB-1254
- 123. PCB-1221
- 124. PCB-1232
- 125. PCB-1248
- 126. PCB-1260
- 127. PCB-1016
- 128. Toxaphene
- 130. Chlorpyrifos

AWQ, Reg. No. 2

	Reported Value (Ce) (ug/l)	Ce-2.13 (ug/l)	STATE Acute (ug/l)	IWC Acute (ug/l)	STATE Chronic (ug/l)	IWC Chronic (ug/l)	STATE Bioacc. (ug/l)	IWC Bioacc. (ug/l)	Violation of Acute Chr	Bio
Alpha-BHC	0.00	0.00	2.00	0.00	0.08	0.00	0.0373	0.00	NO	NO
Beta-BHC	0.00	0.00	2.00	0.00	0.08	0.00			NO	NO
Gamma-BHC	0.00	0.00	2.00	0.00	0.08	0.00			NO	NO
Delta-BHC	0.00	0.00	2.00	0.00	0.08	0.00			NO	NO
Pentachlorophenol	0.00	0.00	12.89	0.00	8.14	0.00			NO	NO
Aldrin	0.00	0.00	3.00	0.00					NO	NO
Chlordane	0.00	0.00	2.40	0.00	0.0043	0.00	0.005	0.00	NO	NO
4,4'-DDT	0.00	0.00	1.10	0.00	0.0010	0.00			NO	NO
4,4'-DDE	0.00	0.00	1.10	0.00	0.0010	0.00			NO	NO
4,4'-DDD	0.00	0.00	2.50	0.00	0.0019	0.00			NO	NO
Diieldrin	0.00	0.00	0.22	0.00	0.0560	0.00	0.0012	0.00	NO	NO
Alpha-endosulfan	0.00	0.00	0.22	0.00	0.0560	0.00			NO	NO
Beta-endosulfan	0.00	0.00	0.22	0.00	0.0560	0.00			NO	NO
Endosulfan sulfate	0.00	0.00	0.18	0.00	0.0023	0.00			NO	NO
Endrin	0.00	0.00	0.18	0.00	0.0023	0.00			NO	NO
Endrin aldehyde	0.00	0.00	0.52	0.00	0.0038	0.00			NO	NO
Heptachlor	0.00	0.00	0.73	0.00	0.0002	0.00			NO	NO
Heptachlor epoxide	0.00	0.00	0.083	0.00	0.0410	0.00	0.0063	0.00	NO	NO
Toxaphene	0.00	0.00	4.37	0.00	1.82	0.00			NO	NO
Chlorpyrifos	0.00	0.00	15.71	0.00	10.58	0.00			NO	NO
Cadmium Total*	0.00	0.00	14.79	9.03	10.93	9.03			NO	NO
Chromium (hex)	4.24	9.03	87.29	3.00	3.40	3.00			NO	NO
Copper Total*	1.41	3.00	6.70	0.00	0.0120	0.00			NO	NO
Mercury Total*	0.00	0.00	1061.45	0.00	117.88	0.00			NO	NO
Nickel Total*	0.00	0.00	20.00	0.00	5.00	0.00			NO	NO
Selenium Total	0.00	0.00	1.5097	0.00					NO	NO
Silver Total*	154.00	328.02	130.87	328.02	119.50	328.02			Yes	Yes
Chromium (Tr)	0.00	0.00	1006.35	0.00	326.45	0.00			NO	NO
Cyanide Total	0.00	0.00	22.36	0.00	5.20	0.00			NO	NO
Beryllium Total	0.00	0.00					0.076	0.00	NO	NO
PCB-1242	0.00	0.00			0.0140	0.00	4.00E-04	0.00	NO	NO
PCB-1254	0.00	0.00			0.0140	0.00	4.00E-04	0.00	NO	NO
PCB-1221	0.00	0.00			0.0140	0.00	4.00E-04	0.00	NO	NO
PCB-1232	0.00	0.00			0.0140	0.00	4.00E-04	0.00	NO	NO
PCB-1248	0.00	0.00			0.0140	0.00	4.00E-04	0.00	NO	NO
PCB-1260	0.00	0.00			0.0140	0.00	4.00E-04	0.00	NO	NO
PCB-1016	0.00	0.00			0.0140	0.00	4.00E-04	0.00	NO	NO
2-3-7-8-TCDD	0.00	0.00			0.0140	0.00	1E-06	0.00	NO	NO

\* See Linear Partition Coefficient (Page 6)

Linear Partition Coefficients

Metals	K <sub>po</sub>	Streams	a
Arsenic	.....		-0.73
Cadmium	.....		-1.13
Chromium(3)	.....		-0.93
Copper	.....		-0.74
Lead	.....		-0.80
Mercury	.....		-1.14
Nickel	.....		-0.57
Zinc	.....		-0.70
Silver	.....		-1.03

$K_p = K_{po} \times TSS^a$

K<sub>p</sub> = Linear Partition Coefficient  
 TSS = Total Suspended Solids (mg/l)  
 K<sub>po</sub> = found from above table  
 a = found from above table

$C/C_t = 1 / (1 + K_p \times TSS \times 10^{-6})$

C / C<sub>t</sub> = Fraction of Metal Dissolved

Metals	K <sub>p</sub>	C / C <sub>t</sub>
Arsenic	138285	0.5680
Cadmium	582707	0.2378
Chromium (3)	688338	0.2089
Copper	294554	0.3817
Lead	715926	0.2025
Mercury	415322	0.3045
Nickel	185434	0.4951
Zinc	379015	0.3242
Silver	414608	0.3048

Total Metal = Dissolved Metal / (C/C<sub>t</sub>)

AQUATIC LIFE CRITERIA (DISSOLVED ACUTE VALUES)

Pollutant	Dissolved(ug/l)	Formula
Cadmium	1.04	WER X Conversion Factor X e <sup>[1.128ln(hardness)]-3.828</sup>
Chromium(III)	210.28	WER X 0.316 X e <sup>[0.819ln(hardness)]+3.688</sup>
Chromium(V)	15.71	WER X 0.982 X 16
Copper	5.64	WER X 0.96 X e <sup>[0.9422ln(hardness)]-1.464</sup>
Lead	17.68	WER X Conversion Factor X e <sup>[1.273ln(hardness)]-1.460</sup>
Mercury	2.04	WER X 0.85 X 2.4
Nickel	525.50	WER X 0.998 X e <sup>[0.8460ln(hardness)]+3.3612</sup>
Silver	0.4602	WER X 0.85 X e <sup>[1.72ln(hardness)]-6.52</sup>
Zinc	42.43	WER X 0.978 X e <sup>[0.8473ln(hardness)]+0.8604</sup>

\* 1.136672 - [(ln hardness)(0.041838)]

\*\* 1.46203 - [(ln hardness)(0.145712)]

AQUATIC LIFE CRITERIA (DISSOLVED CHRONIC VALUES)

Pollutant	Dissolved(ug/l)	Formula
Cadmium	0.43	WER X Conversion Factor X e <sup>[0.7852ln(hardness)]-3.490</sup>
Chromium(III)	68.21	WER X 0.86 X e <sup>[0.819ln(hardness)]+1.561</sup>
Chromium(V)	10.58	WER X 10
Copper	4.17	WER X 0.96 X e <sup>[0.8545ln(hardness)]-1.465</sup>
Lead	0.69	WER X Conversion Factor X e <sup>[1.273ln(hardness)]-4.705</sup>
Nickel	58.42	WER X 0.997 X e <sup>[0.8460ln(hardness)]+1.1645</sup>
Zinc	38.74	WER X 0.986 X e <sup>[0.8473ln(hardness)]+0.7614</sup>

\* 1.101672 - [(ln hardness)(0.041838)]

\*\* 1.46203 - [(ln hardness)(0.145712)]

## Attachment 2

### Linear Partition Coefficients for Priority Metals in Streams and Lakes\*

METAL	STREAMS		LAKES	
	K <sub>po</sub>	a	K <sub>po</sub>	a
Arsenic	0.48 X 10 <sup>6</sup>	-0.73	0.48 X 10 <sup>6</sup>	-0.73
Cadmium	4.00 X 10 <sup>6</sup>	-1.13	3.52 X 10 <sup>6</sup>	-0.92
Chromium**	3.36 X 10 <sup>6</sup>	-0.93	2.17 X 10 <sup>6</sup>	-0.27
Copper	1.04 X 10 <sup>6</sup>	-0.74	2.85 X 10 <sup>6</sup>	-0.9
Lead***	2.80 X 10 <sup>6</sup>	-0.8	2.04 X 10 <sup>6</sup>	-0.53
Mercury	2.90 X 10 <sup>6</sup>	-1.14	1.97 X 10 <sup>6</sup>	-1.17
Nickel	0.49 X 10 <sup>6</sup>	-0.57	2.21 X 10 <sup>6</sup>	-0.76
Silver****	2.40 X 10 <sup>6</sup>	-1.03	2.40 X 10 <sup>6</sup>	-1.03
Zinc	1.25 X 10 <sup>6</sup>	-0.7	3.34 X 10 <sup>6</sup>	-0.68

$$K_p = K_{po} \times TSS^a$$

K<sub>p</sub> = Linear Partition Coefficient

TSS = Total Suspended Solids (mg/l)-(See Attachment 3)

K<sub>po</sub> = found from table

a = found from table

$$C/C_t = 1/(1 + (K_p \times TSS \times 10^{-6}))$$

C/C<sub>t</sub> = Fraction of Metal Dissolved

\* Delos, C. G., W. L. Richardson, J. V. DePinto, R. B., Ambrose, P. W. Rogers, K. Rygwelski, J. P. St. John, W. J. Shaughnessey, T. A. Faha, W. N. Christie. Technical Guidance for Performing Waste Load Allocations, Book II: Streams and Rivers. Chapter 3: Toxic Substances, for the U. S. Environmental Protection Agency. (EPA-440/4-84-022).

\*\* Linear partition coefficient shall not apply to the Chromium VI numerical criterion. The approved analytical method for Chromium VI measures only the dissolved form. Therefore, permit limits for Chromium VI shall be expressed in the dissolved form. See 40 CFR 122.45(c)(3).

\*\*\* Reference page 18 of EPA memo dated March 3, 1992, from Margaret J. Stasikowski(WH-586) to Water management Division Directors, Region I-IX.

\*\*\*\* Texas Environmental Advisory Council, 1994

**Attachment 3**

**TOTAL SUSPENDED SOLIDS(15th PERCENTILE) BY RECEIVING STREAM AND ECOREGION**

For direct discharges to the Arkansas, Red, Ouachita, White, and St. Francis Rivers use the following mean values:

<b>TSS(15th percentile)</b>		
<b>Receiving Stream</b>	<b>TSS</b>	<b>Unit</b>
<b>Arkansas River:</b>		
Ft. Smith to Dardanelle Dam	12.0	mg/l
Dardanelle Dam to Terry L&D	10.5	mg/l
Terry L&D to L&D #5	8.3	mg/l
L&D #5 to Mouth	9.0	mg/l
<b>Red River</b>	33	mg/l
<b>Ouachita River:</b>		
above Caddo River	2.0	mg/l
below Caddo River	5.5	mg/l
<b>White River:</b>		
above Beaver Lake	2.5	mg/l
Bull Shoals to Black River	3.3	mg/l
Black River to Mouth	18.5	mg/l
<b>St. Francis River</b>	18	mg/l

For all other discharges use the following ecoregion TSS:

<b>TSS (15th percentile)</b>		
<b>Ecoregion</b>	<b>TSS</b>	<b>Unit</b>
Ouachita	2	mg/l
Gulf Coastal	5.5	mg/l
Delta	8	mg/l
Ozark Highlands	2.5	mg/l
Boston Mountains	1.3	mg/l
Arkansas River Valley	3	mg/l

Attachment 4 (December-May)

Permittee Cooper Tire Company  
 Receiving Stream unnamed trib. of Nix Creek  
 Permit number AF0038822  
 Flow (Qe) 0.20 MGD  
 Flow (Qa) 0.31 CFS  
 7Q10 = 0.69 CFS  
 Long Term Average = 0.00 CFS  
 Using Diffusers No Yes/No  
 pH = 7.35 S.U.  
 Total Hardness 31.00 mg/l  
 TSS 5.50 mg/l  
 (% of 7Q10 for Chronic) 0.67 Ob 0.46  
 (% of 7Q10 for Acute) 0.33 Ob 0.23  
 Cb  
 AML factor 1.55  
 DML/AML 1.64

WQSa	WLAA	LTAa	WQSc	WLAc	LTAc	LTAa/LTAc	AML, ug/l	DML, ug/l
130.87	226.82	129.29	119.5021	297.40	214.13	129.29	200.40	402.09

Zinc Total\*

\* See Linear Partition Coefficient (Page 6)

Attachment 4 (June-November)

Permittee Cooper Tire and Rubber Co.  
Receiving Stream unnamed trib. of Nix Creek

Permit number AR0038822

Flow (Qe) 0.20 MGD

Flow (Cb) 0.31 CFS

7Q10 = 0.00 CFS

Long Term Average = 0.00 CFS

Using Diffusers No Yes/No

pH = 7.35 S.U.

Total Hardness 31.00 mg/l

TSS 5.50 mg/l

(% of 7Q10 for Chronic) 0.67 0.00

(% of 7Q10 for Acute) 0.33 0.00

Cb 0.00 ug/l

AML factor 1.55

DML/AML 1.64

WQSc WLAa LTAA WQSc WLAc LTAc LTAA/LTAc AML ug/l DML ug/l

Zinc Total\* 130.87 130.87 74.59 119.5021 119.50 86.04 74.59 115.62 231.99

\* See Linear Partition Coefficient (Page 6)

Attachment 5

**BIOMONITORING FREQUENCY RECOMMENDATION  
AND RATIONALE FOR ADDITIONAL REQUIREMENTS**

Permit Number: **AR0038822**

Facility Name: **Cooper Tire & Rubber**

Previous Critical Dilution: **100%** Proposed Critical Dilution: **100%**

Date of Review: **10-24-02** Name of Reviewer: **Clem**

**Outfall 001**

Number of Test Performed during previous 5 years by Species:

***Pimephales promelas* (Fathead minnow) : 31**

***Daphnia pulex* (water flea): 24**

Failed Test Dates during previous 5 years by Species:

***Pimephales promelas* (Fathead minnow) : 12-98,1-99,2-99, 3-99, 4-99, 12-99, 2-00, 4-00,  
5-00, 6-00, 11-00, 12-00, 2-01, 3-01, 12-01, 1-02**

***Daphnia pulex* (water flea): 3-99, 12-99, 11-00**

Previous TRE Activities: None

Frequency Recommendation by Species:

***Pimephales promelas* (Fathead minnow) : once/quarter**

***Daphnia pulex* (water flea): once/quarter**

Additional Requirements (including WET Limits) Rationale/Comments Concerning Permitting:  
WET Limits will remain in the permit

Rationale: *Continuous Planning Process, 2000, Appendix D, E.* "Toxicity testing requirements and the frequency of toxicity testing will be determined on a case-by-case basis. Emphasis will be given to minors with known or potential toxicity."





ARKANSAS  
Department of Environmental Quality

## RESPONSE TO COMMENTS FINAL PERMIT DECISION

This is our response to comments received on the subject draft permit in accordance with regulations promulgated at 40 CFR Part 124.17.

Permit No. : AR0038822  
Applicant : Cooper Tire & Rubber Company  
Prepared by : Alison House  
Permit Action : Final permit decision and response to comments received on the draft permit publicly noticed on 2/14/2003.  
Date Prepared : May 30, 2003

The following comments have been received on the draft permit.

Letter from Robert Nelsen, Cooper Tire Co. to Alison House, ADEQ dated 3/20/2003.

### I. Response to issues raised

#### ISSUE #1

Permittee objects to TOC, COD and TSS limitations and requests that the limits be revised.

#### RESPONSE #1

Staff partially agrees. TOC requirements have been replaced with BOD5 report requirements.

In accordance with 40 CFR 122.44(1) reissued permits must be at least as stringent as the previous permit. Raising effluent limitations already established in the previous permit would be a violation of the anti-backsliding provision. Additionally, there were ten (10) violations during the past two (2) years each for COD and TSS at the time the permit was drafted.

Furthermore, the studies referred to in the permittee's comments were not specific. The Department can only assume that the permittee was referring to recent studies submitted for wet deck operations; studies which are not relevant to this permit renewal as Cooper Tire & Rubber Company does not operate a wet deck facility. However; the permittee

may conduct a wasteload allocation study for the receiving stream to establish discharge limitations for COD and TSS based on Arkansas Water Quality Standards, Regulation No. 2. If an approved study indicates that less stringent effluent limitations and/or Water Quality based limits are appropriate, the permit will be reopened for a major modification and effluent limitations will be revised.

#### ISSUE #2

The permittee requests for the monitoring frequency for effluent parameters and toxicity testing to remain as in the previous permit.

#### RESPONSE #2

Staff agrees.

##### *Effluent parameters*

Based on corrected flow information, the monitoring frequency will remain as in the previous permit. In addition, a footnote has been added to Part IA which changes the monitoring frequency to "two/month, when discharging" with the exception of Zinc which is changed to "once/month, when discharging".

##### *Toxicity testing*

Toxicity testing frequency has been changed to once/quarter.

#### ISSUE #3

Permittee objects to using 0 cfs for the 7Q10 of the receiving stream.

#### RESPONSE #3

Staff disagrees. The Department uses a more conservative approach regarding the 7Q10 of receiving streams. The 7Q10 for the "unnamed tributary of Nix Creek" is based on "Identification and Classification of Perennial Stream of Arkansas", Arkansas Geological Commission Map. However, the Schedule of Compliance has been revised to include the option to perform and submit an approved stream study during the interim period; if the submitted study shows that the 7Q10 is greater than 0 cfs, the permit may be reopened to re-evaluate the Zinc and WET limits.

#### ISSUE #4

Permittee believes the draft permit fails to consider the proper designates use of the receiving stream; that the seasonal fishery use applies to this permit.

#### RESPONSE #4

Staff agrees. With the corrected flow data, the seasonal fishery use would apply in this case. According to Section 2.106 of Regulation 2, the seasonal fishery use is for facilities with design flows 1 cfs or less. In this case, the average flow is 0.201 MGD or 0.31 cfs; therefore the seasonal critical flow is 0.69 cfs.

#### ISSUE #5

Permittee requests that the Zinc sample type be changed to "grab".

#### RESPONSE #5

Staff partially agrees. 40 CFR Part 122.21(g)(7)(ii) states that for stormwater discharges, three grab samples (at least 15 minutes apart) taken during the first three hours of discharge is an acceptable alternative to a composite sample. Part IA has been revised and additional language regarding Zinc sampling has been included in Part III of the final permit.

#### ISSUE #6

Permittee objects to using 2.16 MGD as the average flow in the permit. The permittee stated that the highest monthly average flow over the past two years is 0.201 MGD.

#### RESPONSE #6

Staff agrees.

#### ISSUE #7

Permittee requests that the mass limits for Oil and Grease be removed from the Statement of Basis.

#### RESPONSE #7

Staff agrees.

#### ISSUE #8

Permittee requests that the typo in the Statement of Basis be corrected which stated that the 7Q10 was greater than 100 cfs.

#### RESPONSE #8

Staff agrees. The 7Q10 of the receiving stream is 0 cfs.

ISSUE #9

Permittee requests that Copper and Lead be removed from the table in the Statement of Basis (Page 9), as they were present at levels below the MQL.

RESPONSE #9

Staff disagrees. Appendix D of the Continuing Planning Process (CPP) states, "if a detectable value is shown, even if below the MQL, this value must be entered in the PPS and the potential evaluated." The language prior to the table in question has been revised to be consistent with the CPP.

ISSUE #10

Permittee objects to Section 14 of the Statement of Basis (Page 15).

RESPONSE #10

Staff disagrees. However, the first sentence referring to a treatment facility has been deleted. The remaining language in this section does apply to this facility and will therefore remain in the final Statement of Basis.