EPA

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Washington, D.C. 20460

NPDES Compliance Inspection Report

Form Approved
OMB No. 2040-0003
Approval Expires 7-31-85

Section A: National Data System Coding

1	Transaction Code	2	NPDES									11	12	yr/mo/day				18	Inspec. Type	19	Inspector	20	Fac Type
	N		5		A	R	0	0	2	0	0	1	0			0	7	0	3	2	2		C		S		1

Remarks

A	F	I	N		7	2	-	0	0	1	0	2		M	A	J	O	R		M	U	N	I	C	I	P	A	L

Inspection Work Days		Facility Evaluation Rating		BI		QA		Reserved		
67	69	70	3	71	N	72	N	73	74	75	80

Section B: Facility Data

Name and Location of Facility Inspected *(For industrial users discharging to POTW, also include POTW name and NPDES permit number)*
City of Fayetteville
1500 North Fox Hunter Rd.
Fayetteville, AR 72701

Entry Time /Date
0820/03-22-07

Permit Effective Date
06/01/06

Exit Time/Date
1545/03-22-07

Permit Expiration Date
05/31/011

Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s)
Duyan Tran, Project Manager, 479-443-3292, 479-443-5613 (fax)

Name, Address of Responsible Official/Title/Phone and Fax Number
David Jurgens/Water and Wastewater Director/ (479) 575-8330/(479) 575-8257
City of Fayetteville
113 West Mountain
Fayetteville, AR 72701

Contacted
Yes [ ] No [X]

Other Facility Data
GPS Readings: Outfall 001@ discharge at White River
N 36-05-10.2
W -94-05-01.3
Outfall 002@discharge at tributary to Mudd Creek
N 36-05-24.0
W -94-06-39.0

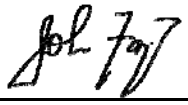
Section C: Areas Evaluated During Inspection
(S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated)

S	Permit	S	Flow Measurement	S	Operations & Maintenance	M	Sampling
S	Records/Reports	M	Self-Monitoring Program	S	Sludge Handling/Disposal	N	Pollution Prevention
S	Facility Site Review	N	Compliance Schedules	N	Pretreatment	N	Multimedia
M	Effluent/Receiving Waters	M	Laboratory	N	Storm Water		Other:

Section D: Summary of Findings/Comments (Attach additional sheets if necessary)

DMRs for July, August and September 2006, flow and lab analysis datasheets for July & August 2006, chain-of-custody reports for August 2006, biomonitoring results (composite Outfall 001 & Outfall 002 samples collected during week beginning 7/16/06), and 40 CFR 122 Table II and Table III toxic pollutant test results were reviewed.

No final effluent limit excursions were noted for these months.

Name(s) and Signature(s) of Inspector(s)	Agency/Office/Telephone/Fax	Date
John Fazio 	Arkansas Dept. of Environmental Quality Fayetteville 479-267-0816/479-267-0819	04/04/07
Dale Washam		
Signature of Reviewer	Agency/Office/Phone and Fax Numbers	Date

	PERMIT NO. AR0020010

SECTION A - PERMIT VERIFICATION

PERMIT SATISFACTORILY ADDRESSES OBSERVATIONS DETAILS:	■ S ☐ M ☐ U ☐ NA (FURTHER EXPLANATION ATTACHED No)
1. CORRECT NAME AND MAILING ADDRESS OF PERMITTEE	■ Y ☐ N ☐ NA
2. NOTIFICATION GIVEN TO EPA/STATE OF NEW, DIFFERENT OR INCREASED DISCHARGES **None**	☐ Y ☐ N ■ NA
3. NUMBER AND LOCATION OF DISCHARGE POINTS AS DESCRIBED IN PERMIT	■ Y ☐ N ☐ NA
4. ALL DISCHARGES ARE PERMITTED	■ Y ☐ N ☐ NA

SECTION B - RECORDKEEPING AND REPORTING EVALUATION

RECORDS AND REPORTS MAINTAINED AS REQUIRED BY PERMIT. DETAILS:	■ S ☐ M ☐ U ☐ NA (FURTHER EXPLANATION ATTACHED No)
1. ANALYTICAL RESULTS CONSISTENT WITH DATA REPORTED ON DMRs.	■ Y ☐ N ☐ NA
2. SAMPLING AND ANALYSES DATA ADEQUATE AND INCLUDE.	■ S ☐ M ☐ U ☐ NA
a) DATES, TIME(S) AND LOCATION(S) OF SAMPLING	■ Y ☐ N ☐ NA
b) NAME OF INDIVIDUAL PERFORMING SAMPLING	■ Y ☐ N ☐ N
c) ANALYTICAL METHODS AND TECHNIQUES.	■ Y ☐ N ☐ NA
d) RESULTS OF ANALYSES AND CALIBRATIONS.	■ Y ☐ N ☐ NA
e) DATES AND TIMES OF ANALYSES.	■ Y ☐ N ☐ NA
f) NAME OF PERSON(S) PERFORMING ANALYSES.	■ Y ☐ N ☐ NA
3. LABORATORY EQUIPMENT CALIBRATION AND MAINTENANCE RECORDS ADEQUATE. **Contract Laboratory**	■ S ☐ M ☐ U ☐ NA
4. PLANT RECORDS INCLUDE SCHEDULES, DATES OF EQUIPMENT MAINTENANCE AND REPAIR.	■ S ☐ M ☐ U ☐ NA
5. EFFLUENT LOADINGS CALCULATED USING DAILY EFFLUENT FLOW AND DAILY ANALYTICAL DATA.	■ Y ☐ N ☐ NA

SECTION C - OPERATIONS AND MAINTENANCE

TREATMENT FACILITY PROPERLY OPERATED AND MAINTAINED. DETAILS:	■ S ☐ M ☐ U ☐ NA (FURTHER EXPLANATION ATTACHED No)
1. TREATMENT UNITS PROPERLY OPERATED.	■ S ☐ M ☐ U ☐ NA
2. TREATMENT UNITS PROPERLY MAINTAINED..	■ S ☐ M ☐ U ☐ NA
3. STANDBY POWER OR OTHER EQUIVALENT PROVIDED. **(Standby Generator)**	■ S ☐ M ☐ U ☐ NA
4. ADEQUATE ALARM SYSTEM FOR POWER OR EQUIPMENT FAILURES AVAILABLE. **(SCADA)**	■ S ☐ M ☐ U ☐ NA
5. ALL NEEDED TREATMENT UNITS IN SERVICE.	■ S ☐ M ☐ U ☐ NA
6. ADEQUATE NUMBER OF QUALIFIED OPERATORS PROVIDED. **7 Class I; 7 Class II; 6 Class III; 7 Class IV**	■ S ☐ M ☐ U ☐ NA
7. SPARE PARTS AND SUPPLIES INVENTORY MAINTAINED.	■ S ☐ M ☐ U ☐ NA
8. OPERATION AND MAINTENANCE MANUAL AVAILABLE.	■ Y ☐ N ☐ NA
STANDARD OPERATING PROCEDURES AND SCHEDULES ESTABLISHED.	■ Y ☐ N ☐ NA
PROCEDURES FOR EMERGENCY TREATMENT CONTROL ESTABLISHED.	☐ Y ☐ N ■ NE

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SECTION C - OPERATIONS AND MAINTENANCE (CONT'D)

9. HAVE BYPASSES/OVERFLOWS OCCURRED AT THE PLANT OR IN THE COLLECTION SYSTEM IN THE LAST YEAR? **(Overflows)** ■ Y ☐ N ☐ NA
IF SO, HAS THE REGULATORY AGENCY BEEN NOTIFIED? ■ Y ☐ N ☐ NA
HAS CORRECTIVE ACTION BEEN TAKEN TO PREVENT ADDITIONAL BYPASSES/OVERFLOWS? ■ Y ☐ N ☐ NA

10. HAVE ANY HYDRAULIC OVERLOADS OCCURRED AT THE TREATMENT PLANT? ■ Y ☐ N ☐ NA
IF SO, DID PERMIT VIOLATIONS OCCUR AS A RESULT? ☐ Y ■ N ☐ NA

SECTION D - SAMPLING

PERMITTEE SAMPLING MEETS PERMIT REQUIREMENTS. ☐ S ■ M ☐ U ☐ NA (FURTHER EXPLANATION ATTACHED Yes).
DETAILS: **(Outfall 001 - White River)**

1. SAMPLES TAKEN AT SITE(S) SPECIFIED IN PERMIT. ■ Y ☐ N ☐ NA

2. LOCATIONS ADEQUATE FOR REPRESENTATIVE SAMPLES. ■ Y ☐ N ☐ NA

3. FLOW PROPORTIONED SAMPLES OBTAINED WHEN REQUIRED BY PERMIT. ■ Y ☐ N ☐ NA

4. SAMPLING AND ANALYSES COMPLETED ON PARAMETERS SPECIFIED IN PERMIT. ■ Y ☐ N ☐ NA

5. SAMPLING AND ANALYSES PERFORMED AT FREQUENCY SPECIFIED IN PERMIT. ■ Y ☐ N ☐ NA

6. SAMPLE COLLECTION PROCEDURES ADEQUATE ■ Y ☐ N ☐ NA

a) SAMPLES REFRIGERATED DURING COMPOSITING. ■ Y ☐ N ☐ NA

b) PROPER PRESERVATION TECHNIQUES USED. **Improper techniques according to some COC reports.** ☐ Y ■ N ☐ NA

c) CONTAINERS AND SAMPLE HOLDING TIMES CONFORM TO 40 CFR 136 ■ Y ☐ N ☐ NA

7. IF MONITORING AND ANALYSES ARE PERFORMED MORE OFTEN THAN REQUIRED BY PERMIT, ARE THE RESULTS REPORTED IN PERMITTEE'S SELF-MONITORING REPORT? ■ Y ☐ N ☐ NA

SECTION E - FLOW MEASUREMENT

PERMITTEE FLOW MEASUREMENT MEETS PERMIT REQUIREMENTS. ■ S ☐ M ☐ U ☐ NA (FURTHER EXPLANATION ATTACHED No)
DETAILS: **(Outfall 001 - White River)**

1. PRIMARY FLOW MEASUREMENT DEVICE PROPERLY INSTALLED AND MAINTAINED. ■ Y ☐ N ☐ NA
TYPE OF DEVICE **36" Parshall Flume**

2. FLOW MEASURED AT EACH OUTFALL AS REQUIRED. ■ Y ☐ N ☐ NA

3. SECONDARY INSTRUMENTS (TOTALIZERS, RECORDERS, ETC.) PROPERLY OPERATED AND MAINTAINED. ■ Y ☐ N ☐ NA

4. CALIBRATION FREQUENCY ADEQUATE. (DATE OF LAST CALIBRATION (12/14/06) ■ Y ☐ N ☐ NA
RECORDS MAINTAINED OF CALIBRATION PROCEDURES. ■ Y ☐ N ☐ NA
CALIBRATION CHECKS DONE TO ASSURE CONTINUED COMPLIANCE. ■ Y ☐ N ☐ NA

5. FLOW ENTERING DEVICE WELL DISTRIBUTED ACROSS THE CHANNEL AND FREE OF TURBULENCE. ■ Y ☐ N ☐ NA

6. HEAD MEASURED AT PROPER LOCATION. ■ Y ☐ N ☐ NA

7. FLOW MEASUREMENT EQUIPMENT ADEQUATE TO HANDLE EXPECTED RANGE OF FLOW RATES. ■ Y ☐ N ☐ NA

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SECTION D - SAMPLING

PERMITTEE SAMPLING MEETS PERMIT REQUIREMENTS. ☐ S ■ M ☐ U ☐ NA (FURTHER EXPLANATION ATTACHED Yes).
DETAILS: **Outfall 002 - Mudd Creek**

1. SAMPLES TAKEN AT SITE(S) SPECIFIED IN PERMIT. ■ Y ☐ N ☐ NA

2. LOCATIONS ADEQUATE FOR REPRESENTATIVE SAMPLES. ■ Y ☐ N ☐ NA

3. FLOW PROPORTIONED SAMPLES OBTAINED WHEN REQUIRED BY PERMIT. ■ Y ☐ N ☐ NA

4. SAMPLING AND ANALYSES COMPLETED ON PARAMETERS SPECIFIED IN PERMIT. ■ Y ☐ N ☐ NA

5. SAMPLING AND ANALYSES PERFORMED AT FREQUENCY SPECIFIED IN PERMIT. ■ Y ☐ N ☐ NA

6. SAMPLE COLLECTION PROCEDURES ADEQUATE ■ Y ☐ N ☐ NA

a) SAMPLES REFRIGERATED DURING COMPOSITING. ■ Y ☐ N ☐ NA

b) PROPER PRESERVATION TECHNIQUES USED. **Improper techniques according to some COC reports.** ☐ Y ■ N ☐ NA

c) CONTAINERS AND SAMPLE HOLDING TIMES CONFORM TO 40 CFR 136 ■ Y ☐ N ☐ NA

7. IF MONITORING AND ANALYSES ARE PERFORMED MORE OFTEN THAN REQUIRED BY PERMIT, ARE THE RESULTS REPORTED IN PERMITTEE'S SELF-MONITORING REPORT? ■ Y ☐ N ☐ NA

SECTION E - FLOW MEASUREMENT

PERMITTEE FLOW MEASUREMENT MEETS PERMIT REQUIREMENTS. ■ S ☐ M ☐ U ☐ NA (FURTHER EXPLANATION ATTACHED No)
DETAILS: **(Outfall 002 - Mudd Creek)**

1. PRIMARY FLOW MEASUREMENT DEVICE PROPERLY INSTALLED AND MAINTAINED. ■ Y ☐ N ☐ NA
TYPE OF DEVICE **Use a magmeter for flow measurement**

2. FLOW MEASURED AT EACH OUTFALL AS REQUIRED. ■ Y ☐ N ☐ NA

3. SECONDARY INSTRUMENTS (TOTALIZERS, RECORDERS, ETC.) PROPERLY OPERATED AND MAINTAINED. ■ Y ☐ N ☐ NA

4. CALIBRATION FREQUENCY ADEQUATE. (DATE OF LAST CALIBRATION (12/15/06) ■ Y ☐ N ☐ NA
RECORDS MAINTAINED OF CALIBRATION PROCEDURES. ■ Y ☐ N ☐ NA
CALIBRATION CHECKS DONE TO ASSURE CONTINUED COMPLIANCE. ■ Y ☐ N ☐ NA

5. FLOW ENTERING DEVICE WELL DISTRIBUTED ACROSS THE CHANNEL AND FREE OF TURBULENCE. ☐ Y ☐ N ■ NA

6. HEAD MEASURED AT PROPER LOCATION. ■ Y ☐ N ☐ NA

7. FLOW MEASUREMENT EQUIPMENT ADEQUATE TO HANDLE EXPECTED RANGE OF FLOW RATES. ■ Y ☐ N ☐ NA

SECTION F - LABORATORY

PERMITTEE LABORATORY PROCEDURES MEET PERMIT REQUIREMENTS. ☐ S ■ M ☐ U ☐ NA (FURTHER EXPLANATION ATTACHED Yes)
DETAILS:

1. EPA APPROVED ANALYTICAL PROCEDURES USED (40 CFR 136.3 FOR LIQUIDS, 503.8(b) FOR SLUDGES) ■ Y ☐ N ☐ NA

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SECTION F - LABORATORY (CONT'D)

2. IF ALTERNATIVE ANALYTICAL PROCEDURES ARE USED, PROPER APPROVAL HAS BEEN OBTAINED ☐ Y ☐ N ■ NA

3. SATISFACTORY CALIBRATION AND MAINTENANCE OF INSTRUMENTS AND EQUIPMENT. ☐ S ■ M ☐ U ☐ NA

4. QUALITY CONTROL PROCEDURES ADEQUATE. ■ S ☐ M ☐ U ☐ NA

5. DUPLICATE SAMPLES ARE ANALYZED. 10 - 100 % OF THE TIME. ■ Y ☐ N ☐ NA

6. SPIKED SAMPLES ARE ANALYZED. 10 – 100 % OF THE TIME. ■ Y ☐ N ☐ NA

7. COMMERCIAL LABORATORY USED. ■ Y ☐ N ☐ NA

LAB NAME **American Interplex** **EcoTox, Arkansas State University**
LAB ADDRESS **8600 Kanis Road, Little Rock, AR 72204** **P.O. Box 847, State University, AR 72467**
PARAMETERS PERFORMED Sludge – table III metals, organics, PCB, TCLP, Cn, phenol, Hg, NO3, NO2, TKN Biomonitoring
Water – table II and table III parameters

SECTION G - EFFLUENT/RECEIVING WATERS OBSERVATIONS. ☐ S ■ M ☐ U ☐ NA (FURTHER EXPLANATION ATTACHED No).

Based on visual observations only.

OUTFALL NO.	OIL SHEEN	GREASE	TURBIDITY	VISIBLE FOAM	FLOAT SOL.	COLOR	OTHER
001	None	None	Trace	Trace	None	Clear	Algae
002	None	None	Trace	Trace	None	Clear	Algae

Comments: Considerable green and black algae observed downstream of both outfalls. Little algae observed above outfalls.

SECTION H - SLUDGE DISPOSAL

SLUDGE DISPOSAL MEETS PERMIT REQUIREMENTS. ■ S ☐ M ☐ U ☐ NA (FURTHER EXPLANATION ATTACHED No).
DETAILS: **(All sludge is being disposed of at a landfill in Oklahoma.)**

1. SLUDGE MANAGEMENT ADEQUATE TO MAINTAIN EFFLUENT QUALITY. ■ S ☐ M ☐ U ☐ NA

2. SLUDGE RECORDS MAINTAINED AS REQUIRED BY 40 CFR 503. ☐ S ☐ M ☐ U ■ NA

3. FOR LAND APPLIED SLUDGE, TYPE OF LAND APPLIED TO: N/A (e.g., FOREST, AGRICULTURAL, PUBLIC CONTACT SITE)

SECTION I - SAMPLING INSPECTION PROCEDURES (FURTHER EXPLANATION ATTACHED No).

1. SAMPLES OBTAINED THIS INSPECTION. ☐ Y ■ N ☐ NA

2. TYPE OF SAMPLE OBTAINED

GRAB _____ COMPOSITE SAMPLE _____ METHOD _____ FREQUENCY

3. SAMPLES PRESERVED. ☐ Y ☐ N ■ NA

4. FLOW PROPORTIONED SAMPLES OBTAINED. ☐ Y ☐ N ■ NA

5. SAMPLE OBTAINED FROM FACILITY'S SAMPLING DEVICE. ☐ Y ☐ N ■ NA

6. SAMPLE REPRESENTATIVE OF VOLUME AND NATURE OF DISCHARGE. ☐ Y ☐ N ■ NA

7. SAMPLE SPLIT WITH PERMITTEE. ☐ Y ☐ N ■ NA

8. CHAIN-OF-CUSTODY PROCEDURES EMPLOYED. ☐ Y ☐ N ■ NA

9. SAMPLES COLLECTED IN ACCORDANCE WITH PERMIT. ☐ Y ☐ N ■ NA

AR0020010
2/3/06
Attachment # 1

FLOW CALCULATION SHEET

OUTFALL 001 (White River)

Field Data: Date 3/22/07 Time 1037

Head in Inches 10 = 0.8333 ft.

Type & Size of Primary Flow Measurement Device 36" Parshall Flume

Name & Model of Secondary Flow Measurement Device Millitronics OCM III Open Channel Meter

Recorded Flow at date & time listed above 5.84 MGD

Flows are calculated from flow charts taken from the ISCO Open Channel Flow Measurement Handbook, 5th Ed.

0.83 ft. = 5.79 M.G.D. Calculated Flow

$$\% \text{ error} = \frac{\textit{recorded value - calculated value}}{\textit{calculated value}} \times 100$$

$$\% \text{ error} = \frac{5.84 \text{ MGD} - 5.793 \text{ MGD}}{5.793 \text{ MGD}} \times 100$$

% error = 0.0081 x 100 = 0.81

% error = 0.81 %

DMR Calculation Check – Outfall 002

Reporting Period: From 2006 (Year) August (Month) 1 (Day) **To** 2006 (Year) August (Month) 31 (Day)

Parameter Checked: Total Phosphorus

	Loading Mass Monthly Avg. (lbs/ day)	Concentration Monthly Avg.-mg/L	7-day Avg- mg/L
Reported Value:	9	0.2	0.2
Calculated Value:	9	0.2	0.2
Permit Value:	50	1.0	2.0

If calculated value does not equal reported value, explain:

NPDES Compliance Inspection Report
Further Explanation

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Section D

Detail 6 b

Chain-of-custody (COC) reports suggest, in some cases, inappropriate preservation methods for certain parameters. For example, on 08/01/06 it appears that Sample ID# 06-0779 parameters - TSS, CBOD, NH_3-N, and PO_4 - were all preserved with both refrigeration and H_2SO_4.

In addition, it is unclear from some COC reports if samples were preserved during apparent extended periods between sample collection times and the times the samples were received by the lab. For example, on 08/02/06, it appears that composite Sample ID# 06-0782 was collected at 1200 and received by the lab at 1700.

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Section F

Detail 3

Some of the laboratory thermometers have not been calibrated against an NBS traceable thermometer within the last 12 months.

ADEQ

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

April 10, 2007

Mr. David Jurgens, Water & Wastewater Director
City of Fayetteville
113 West Mountain
Fayetteville, Arkansas 72701

RE: AFIN: 72-00102 NPDES Permit No.: AR0020010

Dear Mr. Jurgens:

On March 22, 2007, Dale Washam, Inspector Supervisor, and I performed a routine compliance inspection of the Fayetteville waste water treatment facility in accordance with the provisions of the federal Clean Water Act, the Arkansas Water and Air Pollution Control Act, and the regulations promulgated thereunder. This inspection revealed the following violations:

1. Chain-of-custody (COC) reports suggest, in some cases, inappropriate preservation methods for certain parameters. For example, on 08/01/06, it appears that Sample ID# 06-0779 parameters - TSS, CBOD, NH_3-N, and PO_4 - were all preserved with both refrigeration and H_2SO_4. This is in violation of Part II.C.3 of the permit. Discussion with laboratory personnel revealed that appropriate methods of preservation had been used for each parameter, and that modification of the means of recording this information on the COC forms will remedy this matter. In addition, it is unclear from some COC reports if samples were preserved during apparent extended periods between the sample collection times and the times the samples were received by the lab. For instance, on 08/02/06, it appears that composite Sample ID# 06-0782 was collected at 1200 and was received by the lab at 1700.

2. Some of the laboratory thermometers have not been calibrated against an NBS traceable thermometer within the last 12 months. This calibration is required annually.

Although monthly concentration averages were found to be calculated weighted by flow rather than by arithmetic average, comparison of the results using both methods were not significant for the months reviewed. Lab analyses were reviewed for July and August 2006. The results of calculations using the arithmetic average method were consistent with the data reported on the July and August 2006 discharge monitoring reports, however, please note that your permit requires that this calculation be performed using an arithmetic average.

The above items require your immediate attention. Please submit a written response to these findings to the Enforcement Branch of the Water Division when the violations have been corrected. This response should contain documentation describing the course of action taken to correct the items noted. This corrective action should be completed as soon as possible, and the written response is due by April 30, 2007.

If I can be any assistance, please contact me at 479-267-0816.

Sincerely,

John Fazio
District Field Inspector
Water Division

cc: Enforcement Branch
Permit Branch