EPA

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

Form Approved
OMB No. 2040-0003

NPDES Compliance Inspection Report

Section A: National Data System Coding

Transaction Code	NPDES	Yr/Mo/Day	Inspec. Type	Inspector	Fac. Type
N	5	AR0021776	131202	S	S	1

Remarks

Inspection Work Days	Facility Evaluation Rating	BI	QA	Reserved
	2	N	N	

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 Nashville Wastewater Treatment Plant
Hwy 27 ~ ½ mile south of town

Entry Time/Date
0841 / 12-2-2013
0825 / 12-3-2013

Permit Effective Date
February 1, 2009

Exit Time/Date
1421 / 12-2-2013
0848 / 12-3-2013

Permit Expiration Date
January 31, 2014

Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s)
Chip Colston / Chief Operator / (870) 845-4522 **Greg Strawn / Water & Sewer Supt. / (870) 845-7400**
Ed Carlyle / Pretreatment Coordinator / (870) 845-4522

Other Facility Data

Major Municipal

CSI

PDS# 075294

Name, Address of Responsible Official/Title/Phone and Fax Number

Larry Dunaway / Public Works Director / (870) 845-4015
426 North Main Street
Nashville, AR 71852

Contacted
Yes ☑ No ☐

Section C: Areas Evaluated During Inspection

(S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated)

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

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

*** See "Further Explanation" page**

Name(s) and Signature(s) of Inspector(s)	Agency/Office/Telephone	Date
Shan Lynch Shan Lynch	**ADEQ / Dist. 7 / 870 389-6970**	**December 26, 2013**
Signature of Reviewer **Kerri McCabe** Kerri McCabe	Agency/Office/Phone and Fax Numbers **ADEQ / NLR / 501-682-0642**	Date **December 27, 2013**

SECTION D: SAMPLING

PERMITTEE SAMPLING MEETS PERMIT REQUIREMENTS	☑S ☐M ☐U ☐NA ☐NE
DETAILS:	
1. SAMPLES TAKEN AT SITE(S) SPECIFIED IN PERMIT:	☑Y ☐N ☐NA ☐NE
2. LOCATIONS ADEQUATE FOR REPRESENTATIVE SAMPLES:	☑Y ☐N ☐NA ☐NE
3. FLOW PROPORTIONED SAMPLES OBTAINED WHEN REQUIRED BY PERMIT:	☑Y ☐N ☐NA ☐NE
4. SAMPLING AND ANALYSES COMPLETED ON PARAMETERS SPECIFIED IN PERMIT:	☑Y ☐N ☐NA ☐NE
5. SAMPLING AND ANALYSES PERFORMED AT FREQUENCY SPECIFIED IN PERMIT:	☑Y ☐N ☐NA ☐NE
6. SAMPLE COLLECTION PROCEDURES ADEQUATE:	☑Y ☐N ☐NA ☐NE
a. SAMPLES REFRIGERATED DURING COMPOSITING:	☑Y ☐N ☐NA ☐NE
b. PROPER PRESERVATION TECHNIQUES USED:	☑Y ☐N ☐NA ☐NE
c. CONTAINERS AND SAMPLE HOLDING TIMES CONFORM TO 40 CFR 136:	☑Y ☐N ☐NA ☐NE
7. IF MONITORING IS PERFORMED MORE OFTEN THAN REQUIRED ARE RESULTS REPORTED ON THE DMR:	☐Y ☐N ☑NA ☐NE

SECTION E: FLOW MEASUREMENT

PERMITTEE FLOW MEASUREMENT MEETS PERMIT REQUIREMENTS	☑S ☐M ☐U ☐NA ☐NE
DETAILS:	
1. PRIMARY FLOW MEASUREMENT DEVICE PROPERLY INSTALLED AND MAINTAINED:__ TYPE OF DEVICE: **90 V-notch weir**	☑Y ☐N ☐NA ☐NE
2. FLOW MEASURED AT EACH OUTFALL AS REQUIRED:	☑Y ☐N ☐NA ☐NE
3. SECONDARY INSTRUMENTS (TOTALIZERS, RECORDERS, ETC.) PROPERLY OPERATED AND MAINTAINED:	☑Y ☐N ☐NA ☐NE
4. CALIBRATION FREQUENCY ADEQUATE: **April 13, 2010**	☐Y ☐N ☑NA ☐NE
5. RECORDS MAINTAINED OF CALIBRATION PROCEDURES:	☑Y ☐N ☐NA ☐NE
6. CALIBRATION CHECKS DONE TO ASSURE CONTINUED COMPLIANCE:	☑Y ☐N ☐NA ☐NE
7. FLOW ENTERING DEVICE WELL DISTRIBUTED ACROSS THE CHANNEL AND FREE OF TURBULENCE:	☑Y ☐N ☐NA ☐NE
8. FLOW MEASUREMENT EQUIPMENT ADEQUATE TO HANDLE EXPECTED RANGE OF FLOW RATES:	☑Y ☐N ☐NA ☐NE
9. HEAD MEASURED AT PROPER LOCATION:	☑Y ☐N ☐NA ☐NE

SECTION F: LABORATORY

PERMITTEE LABORATORY PROCEDURES MEET PERMIT REQUIREMENTS	☐S ☑M ☐U ☐NA ☐NE
DETAILS:	
1. EPA APPROVED ANALYTICAL PROCEDURES USED (40 CFR 136.3 FOR LIQUIDS, 503.8(B) FOR SLUDGES) :	☑Y ☐N ☐NA ☐NE
2. IF ALTERNATIVE ANALYTICAL PROCEDURES ARE USED, PROPER APPROVAL HAS BEEN OBTAINED:	☐Y ☐N ☑NA ☐NE
3. SATISFACTORY CALIBRATION AND MAINTENANCE OF INSTRUMENTS AND EQUIPMENT:	☑Y ☐N ☐NA ☐NE
4. QUALITY CONTROL PROCEDURES ADEQUATE:	☑Y ☐N ☐NA ☐NE
5. DUPLICATE SAMPLES ARE ANALYZED ≥10% OF THE TIME:	☐Y ☑N ☐NA ☐NE
6. SPIKED SAMPLES ARE ANALYZED ≥10% OF THE TIME:	☑Y ☐N ☐NA ☐NE
7. COMMERCIAL LABORATORY USED:	☑Y ☐N ☐NA ☐NE
a. LAB NAME: **American Interplex** **Ana-Lab Corp.**	
b. LAB ADDRESS: **8600 Kanis Rd.; Little Rock, AR 72204** **PO Box 9000; Kilgore, TX 75663**	
c. PARAMETERS PERFORMED: **biomonitoring** **NH3-N, Total Phosphorous, Nitrite + Nitrite N, Cyanide, Selenium**	
8. BIOMONITORING PROCEDURES ADEQUATE:	☑Y ☐N ☐NA ☐NE
a. PROPER ORGANISMS USED:	☑Y ☐N ☐NA ☐NE
b. PROPER DILUTION SERIES FOLLOWED:	☑Y ☐N ☐NA ☐NE
c. PROPER TEST METHODS AND DURATION:	☑Y ☐N ☐NA ☐NE
d. RETESTS AND/OR TRE PERFORMED AS REQUIRED:	☐Y ☐N ☐NA ☑NE

SECTION G: EFFLUENT/RECEIVING WATERS OBSERVATIONS

BASED ON VISUAL OBSERVATIONS ONLY — ☑S ☐M ☐U ☐NA ☐NE

DETAILS:

OUTFALL #:	OIL SHEEN	GREASE	TURBIDITY	VISIBLE FOAM	FLOATING SOLIDS	COLOR	OTHER
001	none	none	none	none	none	clear	NA

SECTION H: SLUDGE DISPOSAL

SLUDGE DISPOSAL MEETS PERMIT REQUIREMENTS — ☐S ☐M ☐U ☑NA ☐NE

DETAILS:

1.	SLUDGE MANAGEMENT ADEQUATE TO MAINTAIN EFFLUENT QUALITY:	☐S ☐M ☐U ☑NA ☐NE
2.	SLUDGE RECORDS MAINTAINED AS REQUIRED BY 40 CFR 503:	☐S ☐M ☐U ☑NA ☐NE
3.	FOR LAND APPLIED SLUDGE, TYPE OF LAND APPLIED TO: (E.G., FOREST, AGRICULTURAL, PUBLIC CONTACT SITE):	

SECTION I: SAMPLING INSPECTION PROCEDURES

SAMPLE RESULTS WITHIN PERMIT REQUIREMENTS — ☐S ☐M ☑U ☐NA ☐NE

DETAILS:

1.	SAMPLES OBTAINED THIS INSPECTION:	☑Y ☐N ☐NA ☐NE
2.	TYPE OF SAMPLE: ☑GRAB:__ ☑COMPOSITE:__ METHOD:__ FREQUENCY:	
3.	SAMPLES PRESERVED:	☑Y ☐N ☐NA ☐NE
4.	FLOW PROPORTIONED SAMPLES OBTAINED:	☑Y ☐N ☐NA ☐NE
5.	SAMPLE OBTAINED FROM FACILITY'S SAMPLING DEVICE:	☑Y ☐N ☐NA ☐NE
6.	SAMPLE REPRESENTATIVE OF VOLUME AND NATURE OF DISCHARGE:	☑Y ☐N ☐NA ☐NE
7.	SAMPLE SPLIT WITH PERMITTEE:	☐Y ☑N ☐NA ☐NE
8.	CHAIN-OF-CUSTODY PROCEDURES EMPLOYED:	☑Y ☐N ☐NA ☐NE
9.	SAMPLES COLLECTED IN ACCORDANCE WITH PERMIT:	☑Y ☐N ☐NA ☐NE

SECTION J: STORM WATER POLLUTION PREVENTION PLAN

STORM WATER MANAGEMENT MEETS PERMIT REQUIREMENTS — ☐S ☐M ☐U ☑NA ☐NE

DETAILS:

1.	SWPPP UPDATED AS NEEDED:__ DATE OF LAST UPDATE:	☐Y ☐N ☑NA ☐NE
2.	SITE MAP INCLUDING ALL DISCHARGES AND SURFACE WATERS:	☐Y ☐N ☑NA ☐NE
3.	POLLUTION PREVENTION TEAM IDENTIFIED:	☐Y ☐N ☑NA ☐NE
4.	POLLUTION PREVENTION TEAM PROPERLY TRAINED:	☐Y ☐N ☑NA ☐NE
5.	LIST OF POTENTIAL POLLUTANT SOURCES:	☐Y ☐N ☑NA ☐NE
6.	LIST OF POTENTIAL SOURCES AND PAST SPILLS AND LEAKS:	☐Y ☐N ☑NA ☐NE
7.	ALL NON-STORM WATER DISCHARGES ARE AUTHORIZED:	☐Y ☐N ☑NA ☐NE
8.	LIST OF STRUCTURAL BMPS:	☐Y ☐N ☑NA ☐NE
9.	LIST OF NON-STRUCTURAL BMPS:	☐Y ☐N ☑NA ☐NE
10.	BMPS PROPERLY OPERATED AND MAINTAINED:	☐Y ☐N ☑NA ☐NE
11.	INSPECTIONS CONDUCTED AS REQUIRED:	☐Y ☐N ☑NA ☐NE

CSI Sampling Results

Effluent Characteristics	Monthly Ave. – mass	Monthly Ave. – mass limit	Monthly Ave. - concentration	Monthly Ave. – concentration limit	7 day Ave. - concentration	7 day Ave. – concentration limit
CBOD	**24.45 lbs/day**	**192**	**1.43 mg/l**	**10**	**1.43 mg/l**	**15**
TSS	**76.94 lbs/day**	**288**	**4.5 mg/l**	**15**	**4.5 mg/l**	**22.5**
NH3-N	**112.67 lbs/day**	**96**	**6.59 mg/l**	**5**	**6.59 mg/l**	**7.5**
T. Phosphorus	**5.52 lbs/day**	**report**	**0.323 mg/l**	**report**	**0.323 mg/l**	**report**
NO2+NO3-N	**49.75 lbs/day**	**report**	**2.91 mg/l**	**report**	**2.91 mg/l**	**report**
Tot. Rec. Selenium	**0.034 lbs/day**	**0.148**	**<2 µg/l**	**7.73µg/l**	**<2 µg/l**	**15.5µg/l**
Fecal coliform	**NA**	**NA**	**<1 col/100 ml**	**1000**	**<1 col/100 ml**	**2000**

TRC 0.02 / 0.03
pH 6.90 / 6.95
DO 12.71 / 12.76
24 hr. avg. flow 2.05 mgd
Grab flow 2.05 mgd

*** The NH3-N monthly average concentration and monthly average lbs/day exceeded the permit limits.**

NPDES Compliance Inspection Report
Further Explanation

Sec. B – For the purposes of calculating the mass loadings, the average flow during the 6-hr. composite sample period should be used for the parameters requiring composite samples and the instantaneous flow taken at the time the grab samples are collected should be used for the parameters requiring grab samples. Currently the facility is calculating all mass loadings using a 24 hour flow.

Sec. B, 1 – A DMR calculation check revealed an error in calculating the loadings for Ammonia Nitrogen for July 2013. No reason for the calculation error could be found.

Sec. B, 2, b – The exact location of sample collection is not noted on the facility records for the parameters sent to the contract lab for analyses.

Sec. B, 2, c – The name of the individual collecting the sample is not noted on the facility records for the parameters sent to the contract lab for analyses.

Sec. B, 2, a & g – Not all sample collection times and analyses times are accurate. Facility records should indicate the exact time each sample is collected and the exact time each sample is analyzed.

Sec. B, 2, h – The identification of the analyst recorded on the facility bench sheets is not always accurate. Facility records should indicate the exact individual performing the analyses.

Sec. C, 2 – An excessive amount of sludge was observed in the aeration lagoons. This sludge should be removed in order to maintain the designed volume and achieve maximum treatment. Please consult with the ADEQ Permits Branch staff as specific permitting requirements may be needed for the disposal of this sludge.

Sec. C, 2 – Excessive sewage-related solids were found in the aeration and facultative lagoons. A primary bar screen should be installed to collect the solids prior to entering the system.

Sec. C, 2 – Interior levee bank erosion and excessively tall vegetation was noted in various locations.

Sec. F, 5 – Duplicates of the in-house analyzed parameters are not being performed as required. No documentation that duplicates have been performed after April 2013 could be located.

Sec. I - The NH3-N monthly average concentration and monthly average lbs/day exceeded the permit limits.

* The permit requires daily flow monitoring. Recommend that facility flow records indicated a “no flow” on days that no discharge occurred at the plant. A blank value might give the false impression that a discharge did occur but no flow value was documented.

City of Nashville
426 North Main Street
Nashville, AR 71852
1-870-845-4015

January 3, 2014

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

Mr. Shan Lynch
District 7 Field Inspector
Water Division

Re: Reply to Inspection Letter dated December 30, 2013

Dear Mr. Lynch:

We appreciate all your comments and requirements noted during your last inspection. Inspections are eye-openers to tell us at the waste treatment plant and laboratory necessary changes needed to help us in our daily operations. This letter answers and corrects those necessary changes. It is our intention to tell you that we take your comments seriously and have taken actions to correct any problems found. We look forward to your next visit in the near future.

Attachment follows. If further changes or comments are needed, we will address them in a quick fashion. You may contact me at 870-845-4015.

Sincerely,

Larry Dunaway

Larry Dunaway
Public Works Director

Cc: Greg Strawn, Water/Wastewater Superintendent
Ed Carlyle, Jr., Pretreatment/Laboratory

Wastewater Treatment Plant

1. For the purpose of calculating the mass loadings, the average flow measurement during the 6-hr composite sample period should be used for the parameters requiring composite samples and the instantaneous flow measurement taken at the time the grab samples are collected should be used for the parameters requiring grab samples. Currently the facility is calculating all mass loadings using a 24 hour flow.

REPLY (1): We have changed our lab sheets to incorporate records for flow of 6-hr and 24 hour flow rates. The six hour composite flow rate is as follows: the beginning time (10:00 am), the ending time (16:00 pm), record the total, and who is responsible for recording the results. We also record from the wastewater laboratory sheets the 24-hour flow rate for DMR records.

2. A DMR calculation check revealed an error in calculating the loadings for Ammonia Nitrogen for July 2013. No reason for the calculation error could be found.

REPLY (2): Human Error, more time will be implemented and a triple check method to make sure all calculations are correct and the person recording such results knows correct procedures.

3. The exact location of sample collection is not noted on the facility records for the parameters sent to the contract lab for analyses.

REPLY (3): Ed Carlyle, Laboratory Technician, has contacted and talked with Ben Head, AnaLab Supervisor, the location of samples taken will be applied on the laboratory sheets or else written in under comments by sampling personnel.

4. The name of the individual collecting the sample is not noted on the facility records for the parameters sent to the contract lab for analyses.

REPLY (4): The person collecting the sample now is responsible for filling out the needed data and signature in his or her own writing as per new laboratory record keeping lab sheet. All personnel have been trained and now know their responsibly concerning record keeping. Two lab technicians have returned to city hall to their own jobs as their training is over with, this has eliminated any confusion with records and signatures.

5. Not all sample collection times and analyses times are accurate. Facility records should indicate the exact time each sample is collected and the exact time each sample is analyzed.

REPLY (5): See reply number 4.

6. The identification of the analyst recorded on the facility bench sheets is not always accurate. Facility records should indicate the exact individual performing the analyses.

REPLY (6): Personnel have been trained and know their responsibilities of record keeping and some personnel have been removed from the laboratory which will eliminate some of the confusion with all the record keeping.

7. An excessive amount of sludge was observed in the aeration lagoons. This sludge should be removed in order to maintain the designed volume and achieve maximum treatment. Please consult with the ADEQ Permits Branch staff as specific permitting requirements may be needed for the disposal of this sludge.

REPLY (7): New permit requirements for the new wastewater treatment plant and construction with the new sludge removal system will solve this problem. Nashville has never had the system to remove sludge. We now have incorporated sludge removal with this new system.

8. Excessive sewage-related solids were found in the aeration and facultative lagoons. A primary bar screen should be installed to collect the solids prior to entering the system.

REPLY (8): The new treatment system currently under construction has plans to install a bar screen within the influent collection system.

9. Interior levee bank erosion and excessively tall vegetation was noted in various locations.

REPLY (9): Steps have already been taken to improve levee bank erosion by the placement of rip-rap around the banks of the holding pond. Excessive tall vegetation will be scheduled for removal by the distribution personnel in the near future.

10. Duplicates of the in-house analyzed parameters are not being performed as required. No documentation that duplicates have been performed after April 2013 could be located.

REPLY (10): A new laboratory bench sheet has been developed to incorporate room for duplicates for all analyses performed by the lab. Dates are monthly recorded on a lab calendar for the year.

11. The NH3-N monthly average concentration and monthly average lbs/day exceeded the permit limits.

REPLY (11): The construction to be completed by the end of 2014 of a new waste

treatment plant is planned around this problem and should eliminate any problems concerning ammonia.

Sanitary Sewer Overflow

No violations of the permit were found during the inspection.

Pretreatment

1. The current program requires that the City sample and inspect the Categorical Industrial Users twice per year. However, these sampling and inspection events are only performed once per year.

REPLY (1): On December 5, 2013 a letter was sent to Jan-Eze Plating which changed the sampling and inspection requirements from two per year to only once per year. This was an amendment to the current discharge permit. In accordance with 40 CFR 403.8 all significant or categorical industrial users must be inspected and sampled at least once per year. Recent inspections have noticed no discrepancies and repeated information year after year, thus the reduction of sampling and inspections.

WWTP Construction Permit

1. This permit states that "if the construction site will disturb in excess of one (1) acre, the permitted must comply with the terms of the Storm water Construction General Permit Number ARR15000 prior to the start of construction. Best Management Practices (BMP's) must be in place regardless of the size." No storm water controls were observed to be in place at the time of the inspection.

REPLY (1): A storm water permit has recently been obtain and is in full effect. Nashville Public Director, Larry Dunaway, has fulfilled this requirement. All questions of concern can be answered by contacting Larry at 870-845-4013.

Land Application Permit

No violations of this permit were found during the inspection.

CITY OF NASHVILLE
LARRY DUNAWAY
PUBLIC WORKS
DIRECTOR
426 NORTH MAIN STREET
NASHVILLE, AR 71852

JAN

State of Arkansas
ADEQ
Attention: Shan Lynch
District 7 Field Inspector
5301 Northshore Dr
North Little Rock, AR 72118-5317

ADEQ
ARKANSAS
Department of Environmental Quality

January 17, 2014

Larry Dunaway, Public Works Director
City of Nashville
426 North Main Street
Nashville, AR 71852

RE: Response to Inspections (Howard Co)
AFIN: 31-00036 NPDES Permit No.: AR0021776
AR0021776C
31-00274 Permit No.: 4794-WG-WR

Dear Mr. Dunaway:

I have reviewed the response pertaining to my December 2, 2013 inspections of the City of Nashville's wastewater treatment facility and the related permits. The information provided sufficiently addresses the violations referenced in my inspection report. At this time, the Department has no further comment concerning this particular inspection. Acceptance of this response by the Department does not preclude any future enforcement action deemed necessary at this site or any other site.

If we need further information concerning this matter, we will contact you. Thank you for your attention to this matter. Should you have any questions, feel free to contact me at 870 389-6970 or you may e-mail me at lynch@adeq.state.ar.us.

Sincerely,

Shan Lynch

Shan Lynch
District 7 Field Inspector
Water Division