

## Region 6 Compliance Assurance and Enforcement Division

### INSPECTION REPORT

|                                        |                                                                                                              |                          |                                                                          |
|----------------------------------------|--------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------------------------------------------------------|
| Inspection Date(s):                    | 5/20/2025                                                                                                    |                          |                                                                          |
| Media:                                 | Water                                                                                                        |                          |                                                                          |
| Regulatory Program(s)                  | Clean Water Act                                                                                              |                          |                                                                          |
| Company Name:                          | City of Blytheville                                                                                          |                          |                                                                          |
| Facility Names:                        | City of Blytheville – North                                                                                  |                          |                                                                          |
| Facility Physical Locations:           | 5601 NCR 725                                                                                                 |                          |                                                                          |
| (city, state, zip code)                | Blytheville, AR 72315                                                                                        |                          |                                                                          |
| Mailing address:                       | P.O.BOX 1784                                                                                                 |                          |                                                                          |
| (city, state, zip code)                | Blytheville, AR 72315                                                                                        |                          |                                                                          |
| County/Parish:                         | Mississippi                                                                                                  |                          |                                                                          |
| Facility Contact:                      | Melisa R. Logan                                                                                              | Mayor                    |                                                                          |
|                                        | mlogan@cityofblytheville.com                                                                                 |                          |                                                                          |
|                                        | 870-763-3602                                                                                                 |                          |                                                                          |
| FRS Number:                            |                                                                                                              |                          |                                                                          |
| Identification/Permit Number:          | AR0022586                                                                                                    |                          |                                                                          |
| Media Number:                          |                                                                                                              |                          |                                                                          |
| NAICS:                                 |                                                                                                              |                          |                                                                          |
| SIC:                                   | 4952                                                                                                         |                          |                                                                          |
| Personnel participating in inspection: |                                                                                                              |                          |                                                                          |
| Michael Williams                       | EPA/ 6EN-WMH                                                                                                 | Inspector                | 281-983-2150                                                             |
| Walter Kincade                         | ADEQ                                                                                                         | Inspector                | 501-837-6981                                                             |
| James Clark                            | City of Blytheville                                                                                          | Operator                 | 870-763-4961                                                             |
| Darwin Brown                           | City of Blytheville                                                                                          | Operator                 | 870-763-4961                                                             |
| Steven Walker                          | City of Blytheville                                                                                          | Pretreatment Coordinator | 870-763-4961                                                             |
| Willie Bell                            | City of Blytheville                                                                                          | Operator                 | 870-763-4961                                                             |
| EPA Lead Inspector<br>Signature/Date   |  <b>MICHAEL WILLIAMS</b> |                          | <b>MICHAEL WILLIAMS</b><br>2025.07.29 16:20:22 -05'00'                   |
|                                        | Michael D. Williams                                                                                          |                          | Date                                                                     |
| Supervisor<br>Signature/Date           |  <b>ROBERTO BERNIER</b>  |                          | Digitally signed by ROBERTO BERNIER<br>Date: 2025.07.29 17:46:19 -04'00' |
|                                        | Roberto Bernier                                                                                              |                          | Date                                                                     |

## **Section I - Introduction**

### **PURPOSE OF THE INSPECTION**

EPA Region 6 inspector, Michael Williams, arrived at the City of Blytheville Wastewater Treatment Plant (WWTP) at 9:00 am on May 20, 2025, for an unannounced National Pollutant Discharge Elimination System (NPDES) inspection. During the opening conference, I met with Steve Walker, Pretreatment Coordinator. Mr. Walker was informed that this was an EPA lead compliance evaluation inspection to determine compliance with the facility's NPDES permit AR0022586, facility operations and maintenance requirements under the Clean Water Act (CWA). The inspection was conducted under the authority of the NPDES permit program, in accordance with the Federal CWA.

The information presented in this report is based on the materials and information supplied by the City of Blytheville representatives, observations made during the inspection, and records or reports maintained by the permittee, permittee contract laboratory, the State of Arkansas and EPA.

### **FACILITY DESCRIPTIONS**

#### **City of Blytheville - North – Facility Overview**

The City of Blytheville North Wastewater Treatment Plant is a municipal facility employing an Activated Sludge Process, a form of biological treatment designed to handle an average daily flow of 2.04 million gallons of wastewater.

Treatment begins at the headworks, where raw sewage enters the plant. Here, two mechanical bar screens are used to intercept and remove large debris and coarse solids such as rags, sticks, and plastics.

After screening, the flow continues into a single aeration lagoon. In this lagoon, air is introduced to promote the growth of beneficial microorganisms that break down organic matter. This aerobic environment supports the activated sludge process, where bacteria and other microorganisms consume dissolved and suspended organic materials, converting them into more stable forms.

Following aeration, the partially treated water is conveyed to two clarifiers, where the flow slows to allow suspended solids and biological flocs to settle by gravity. The settled sludge is collected from the bottom of the clarifiers, while the clarified effluent proceeds to the next treatment stage.

The clarified water enters a polishing pond, equipped with curtains to further reduce turbidity by allowing additional time for fine particles to settle.

For disinfection, the plant utilizes an ultraviolet (UV) disinfection system. The treated and disinfected effluent is then discharged into the receiving stream at Outfall 001.

Residual solids generated throughout the treatment process are managed entirely onsite. The facility maintains a 26-acre sludge storage lagoon, located within the plant boundaries. This lagoon provides long-term storage and stabilization of biosolids.

## **Section II- Observations**

This inspection revealed the following observations:

- On the day of the inspection, no major observations noted.

## **Section III- Areas of Concern**

This inspection revealed the following areas of concern:

- Since the City of Blytheville has completed the rehab of the North Plant there has been improved compliance with conventional National Pollutant Discharge Elimination System (NPDES) permit limits, including parameters such as biochemical oxygen demand (BOD), total suspended solids (TSS), and ammonia. However, despite these improvements, the facility continues to experience periodic exceedance with its permitted mercury, ammonia and DO limits. Exceedances in mercury concentrations remain an ongoing compliance concern, indicating a need for further investigation and potential source control.

## **Section IV – LIST OF APPENDICES**

- Appendix A – Photos
- Appendix B – Effluent Violations

## Appendix A

### Photograph Log



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 1

|                                     |                            |           |
|-------------------------------------|----------------------------|-----------|
| Location: City of Blytheville-North |                            |           |
| City: Blytheville                   | County/Parish: Mississippi | State: AR |



Bar Screen



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 2

|                                     |                            |           |
|-------------------------------------|----------------------------|-----------|
| Location: City of Blytheville-North |                            |           |
| City: Blytheville                   | County/Parish: Mississippi | State: AR |



Aeration Lagoon



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 3

|                                     |                            |           |
|-------------------------------------|----------------------------|-----------|
| Location: City of Blytheville-North |                            |           |
| City: Blytheville                   | County/Parish: Mississippi | State: AR |



Not In Use Lagoon



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Photograph Log

Photo No. 4

|                                     |                            |           |
|-------------------------------------|----------------------------|-----------|
| Location: City of Blytheville-North |                            |           |
| City: Blytheville                   | County/Parish: Mississippi | State: AR |



Clarifier



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 5

|                                     |                            |           |
|-------------------------------------|----------------------------|-----------|
| Location: City of Blytheville-North |                            |           |
| City: Blytheville                   | County/Parish: Mississippi | State: AR |



Clarifer



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 6

|                                     |                            |           |
|-------------------------------------|----------------------------|-----------|
| Location: City of Blytheville-North |                            |           |
| City: Blytheville                   | County/Parish: Mississippi | State: AR |



Polishing Lagoon

## Appendix B

### Effluent Violation Summary

**Blytheville, City  
of - North  
Treatment  
Facility**

| Monitoring<br>Period End<br>Date | Perm<br>Feature<br>ID | Parameter Desc                 | Statistical<br>Base<br>Short<br>Desc | Limit<br>Unit<br>Short<br>Desc | Limit<br>Value | DMR<br>Value |
|----------------------------------|-----------------------|--------------------------------|--------------------------------------|--------------------------------|----------------|--------------|
| 01/31/2023                       | 001                   | Coliform, fecal general        | 30DA GEO                             | #/100mL                        | 1000.          | 1091.        |
| 01/31/2023                       | 001                   | Nitrogen, ammonia total [as N] | 7 DA AVG                             | mg/L                           | 3.             | 12.9         |
| 01/31/2023                       | 001                   | Nitrogen, ammonia total [as N] | MO AVG                               | lb/d                           | 13.3           | 35.1         |
| 01/31/2023                       | 001                   | Nitrogen, ammonia total [as N] | MO AVG                               | mg/L                           | 2.             | 12.          |
| 01/31/2023                       | 001                   | Oxygen, dissolved [DO]         | INST MIN                             | mg/L                           | 7.             | 5.           |
| 01/31/2023                       | 001                   | Solids, total suspended        | 7 DA AVG                             | mg/L                           | 45.            | 77.          |
| 01/31/2023                       | 001                   | Solids, total suspended        | MO AVG                               | mg/L                           | 30.            | 46.          |
| 02/28/2023                       | 001                   | Nitrogen, ammonia total [as N] | 7 DA AVG                             | mg/L                           | 3.             | 11.3         |
| 02/28/2023                       | 001                   | Nitrogen, ammonia total [as N] | MO AVG                               | lb/d                           | 13.3           | 39.7         |
| 02/28/2023                       | 001                   | Nitrogen, ammonia total [as N] | MO AVG                               | mg/L                           | 2.             | 9.9          |
| 02/28/2023                       | 001                   | Oxygen, dissolved [DO]         | INST MIN                             | mg/L                           | 7.             | 5.           |
| 02/28/2023                       | 001                   | Solids, total suspended        | 7 DA AVG                             | mg/L                           | 45.            | 52.          |
| 02/28/2023                       | 001                   | Solids, total suspended        | MO AVG                               | mg/L                           | 30.            | 37.          |
| 03/31/2023                       | 001                   | Copper, total recoverable      | MO AVG                               | lb/d                           | .2             | .34935       |
| 03/31/2023                       | 001                   | Mercury, total recoverable     | MO AVG                               | lb/d                           | .0001          | .00071       |
| 03/31/2023                       | 001                   | Nitrogen, ammonia total [as N] | 7 DA AVG                             | mg/L                           | 3.             | 14.1         |
| 03/31/2023                       | 001                   | Nitrogen, ammonia total [as N] | MO AVG                               | lb/d                           | 13.3           | 75.5         |
| 03/31/2023                       | 001                   | Nitrogen, ammonia total [as N] | MO AVG                               | mg/L                           | 2.             | 13.9         |
| 03/31/2023                       | 001                   | Oxygen, dissolved [DO]         | INST MIN                             | mg/L                           | 7.             | 5.5          |
| 04/30/2023                       | 001                   | Nitrogen, ammonia total [as N] | 7 DA AVG                             | mg/L                           | 3.             | 13.3         |
| 04/30/2023                       | 001                   | Nitrogen, ammonia total [as N] | MO AVG                               | lb/d                           | 13.3           | 49.5         |
| 04/30/2023                       | 001                   | Nitrogen, ammonia total [as N] | MO AVG                               | mg/L                           | 2.             | 13.1         |
| 04/30/2023                       | 001                   | Oxygen, dissolved [DO]         | INST MIN                             | mg/L                           | 7.             | 4.4          |
| 04/30/2023                       | 001                   | Solids, total suspended        | MO AVG                               | mg/L                           | 30.            | 32.          |
| 05/31/2023                       | 001                   | Nitrogen, ammonia total [as N] | 7 DA AVG                             | mg/L                           | 3.             | 11.9         |
| 05/31/2023                       | 001                   | Nitrogen, ammonia total [as N] | MO AVG                               | lb/d                           | 13.3           | 43.1         |
| 05/31/2023                       | 001                   | Nitrogen, ammonia total [as N] | MO AVG                               | mg/L                           | 2.             | 11.4         |

**City of Blytheville-North**  
**AR0022586**  
**Inspection Date 5/20/2025**

|            |     |                                |          |      |       |         |
|------------|-----|--------------------------------|----------|------|-------|---------|
| 05/31/2023 | 001 | Oxygen, dissolved [DO]         | INST MIN | mg/L | 7.    | 6.1     |
| 06/30/2023 | 001 | Nitrogen, ammonia total [as N] | 7 DA AVG | mg/L | 3.    | 10.6    |
| 06/30/2023 | 001 | Nitrogen, ammonia total [as N] | MO AVG   | mg/L | 2.    | 5.      |
| 06/30/2023 | 001 | Oxygen, dissolved [DO]         | INST MIN | mg/L | 7.    | 6.      |
| 07/31/2023 | 001 | Nitrogen, ammonia total [as N] | 7 DA AVG | mg/L | 3.    | 4.1     |
| 07/31/2023 | 001 | Nitrogen, ammonia total [as N] | MO AVG   | lb/d | 13.3  | 16.6    |
| 07/31/2023 | 001 | Nitrogen, ammonia total [as N] | MO AVG   | mg/L | 2.    | 3.8     |
| 07/31/2023 | 001 | Oxygen, dissolved [DO]         | INST MIN | mg/L | 7.    | 3.4     |
| 08/31/2023 | 001 | Nitrogen, ammonia total [as N] | 7 DA AVG | mg/L | 3.    | 3.9     |
| 08/31/2023 | 001 | Nitrogen, ammonia total [as N] | MO AVG   | lb/d | 13.3  | 14.7    |
| 08/31/2023 | 001 | Nitrogen, ammonia total [as N] | MO AVG   | mg/L | 2.    | 3.1     |
| 08/31/2023 | 001 | Oxygen, dissolved [DO]         | INST MIN | mg/L | 7.    | 4.9     |
| 09/30/2023 | 001 | Oxygen, dissolved [DO]         | INST MIN | mg/L | 7.    | 5.      |
| 10/31/2023 | 001 | Oxygen, dissolved [DO]         | INST MIN | mg/L | 7.    | 6.9     |
| 11/30/2023 | 001 | Mercury, total recoverable     | MO AVG   | ug/L | .0134 | .0166   |
| 11/30/2023 | 001 | Oxygen, dissolved [DO]         | INST MIN | mg/L | 7.    | 5.4     |
| 12/31/2023 | 001 | Mercury, total recoverable     | MO AVG   | ug/L | .0134 | .0231   |
| 05/31/2024 | 001 | Mercury, total recoverable     | 7 DA AVG | ug/L | .0269 | .0431   |
| 05/31/2024 | 001 | Mercury, total recoverable     | MO AVG   | lb/d | .0001 | .000142 |
| 05/31/2024 | 001 | Mercury, total recoverable     | MO AVG   | ug/L | .0134 | .0431   |
| 05/31/2024 | 001 | Oxygen, dissolved [DO]         | INST MIN | mg/L | 7.    | 5.3     |
| 06/30/2024 | 001 | Nitrogen, ammonia total [as N] | 7 DA AVG | mg/L | 3.    | 3.9     |
| 06/30/2024 | 001 | Nitrogen, ammonia total [as N] | MO AVG   | lb/d | 13.3  | 18.6    |
| 06/30/2024 | 001 | Nitrogen, ammonia total [as N] | MO AVG   | mg/L | 2.    | 2.9     |
| 06/30/2024 | 001 | Oxygen, dissolved [DO]         | INST MIN | mg/L | 7.    | 4.2     |
| 07/31/2024 | 001 | Nitrogen, ammonia total [as N] | MO AVG   | lb/d | 13.3  | 15.3    |
| 07/31/2024 | 001 | Nitrogen, ammonia total [as N] | MO AVG   | mg/L | 2.    | 2.1     |
| 07/31/2024 | 001 | Oxygen, dissolved [DO]         | INST MIN | mg/L | 7.    | 4.      |
| 08/31/2024 | 001 | Oxygen, dissolved [DO]         | INST MIN | mg/L | 7.    | 4.8     |
| 09/30/2024 | 001 | Oxygen, dissolved [DO]         | INST MIN | mg/L | 7.    | 5.4     |
| 10/31/2024 | 001 | Oxygen, dissolved [DO]         | INST MIN | mg/L | 7.    | 6.5     |
| 11/30/2024 | 001 | Nitrogen, ammonia total [as N] | MO AVG   | lb/d | 13.3  | 16.8    |
| 11/30/2024 | 001 | Nitrogen, ammonia total [as N] | MO AVG   | mg/L | 2.    | 2.6     |

**City of Blytheville-North**  
**AR0022586**  
**Inspection Date 5/20/2025**

|            |     |                                |          |      |       |         |
|------------|-----|--------------------------------|----------|------|-------|---------|
| 11/30/2024 | 001 | Oxygen, dissolved [DO]         | INST MIN | mg/L | 7.    | 6.4     |
| 03/31/2025 | 001 | Nitrogen, ammonia total [as N] | 7 DA AVG | mg/L | 3.    | 5.3     |
| 03/31/2025 | 001 | Nitrogen, ammonia total [as N] | MO AVG   | mg/L | 2.    | 2.4     |
| 04/30/2025 | 001 | Mercury, total recoverable     | MO AVG   | lb/d | .0001 | .000107 |
| 05/31/2025 | 001 | Mercury, total recoverable     | MO AVG   | lb/d | .0001 | .00038  |
| 05/31/2025 | 001 | Mercury, total recoverable     | MO AVG   | ug/L | .0134 | .0152   |
| 05/31/2025 | 001 | Nitrogen, ammonia total [as N] | 7 DA AVG | mg/L | 3.    | 4.1     |
| 05/31/2025 | 001 | Nitrogen, ammonia total [as N] | MO AVG   | lb/d | 13.3  | 21.1    |
| 05/31/2025 | 001 | Nitrogen, ammonia total [as N] | MO AVG   | mg/L | 2.    | 3.2     |
| 05/31/2025 | 001 | Oxygen, dissolved [DO]         | INST MIN | mg/L | 7.    | 6.4     |
| 06/30/2025 | 001 | Mercury, total recoverable     | MO AVG   | lb/d | .0001 | .000103 |
| 06/30/2025 | 001 | Nitrogen, ammonia total [as N] | MO AVG   | lb/d | 13.3  | 22.     |
| 06/30/2025 | 001 | Nitrogen, ammonia total [as N] | MO AVG   | mg/L | 2.    | 2.4     |
| 06/30/2025 | 001 | Oxygen, dissolved [DO]         | INST MIN | mg/L | 7.    | 3.8     |