

## Region 6 Compliance Assurance and Enforcement Division

### INSPECTION REPORT

|                                        |                                                                                                                                                                  |           |              |
|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|--------------|
| Inspection Date(s):                    | 08/21/2023                                                                                                                                                       |           |              |
| Media:                                 | Water                                                                                                                                                            |           |              |
| Regulatory Program(s)                  | Clean Water Act                                                                                                                                                  |           |              |
| Company Name:                          | City of Walnut Ridge                                                                                                                                             |           |              |
| Facility Name:                         | City of Walnut Ridge                                                                                                                                             |           |              |
| Facility Physical Location:            | 1002 OAK ST,                                                                                                                                                     |           |              |
| (city, state, zip code)                | WALNUT RIDGE, AR 72476                                                                                                                                           |           |              |
| Mailing address:                       | 216 Southwest Fourth St.                                                                                                                                         |           |              |
| (city, state, zip code)                | Walnut Ridge, AR 72476                                                                                                                                           |           |              |
| County/Parish:                         | Lawrence County                                                                                                                                                  |           |              |
| Facility Contact:                      | Charles Snapp                                                                                                                                                    | Mayor     |              |
|                                        | cityhall@cityofwalnutridge.com                                                                                                                                   |           |              |
|                                        | 870-886-6638                                                                                                                                                     |           |              |
| FRS Number:                            |                                                                                                                                                                  |           |              |
| Identification/Permit Number:          | AR0046566                                                                                                                                                        |           |              |
| Media Number:                          |                                                                                                                                                                  |           |              |
| NAICS:                                 |                                                                                                                                                                  |           |              |
| SIC:                                   | 4952                                                                                                                                                             |           |              |
| Personnel participating in inspection: |                                                                                                                                                                  |           |              |
| Michael Williams                       | EPA/ 6EN-WMH                                                                                                                                                     | Inspector | 281-983-2150 |
| Brent Walker                           | ADEQ                                                                                                                                                             | Inspector | 501-837-2068 |
| Wayne Reynolds                         | ADEQ                                                                                                                                                             | Inspector |              |
| Jeremy Lewis                           | City of Walnut Ridge                                                                                                                                             | Operator  | 870-886-2312 |
|                                        |                                                                                                                                                                  |           |              |
|                                        |                                                                                                                                                                  |           |              |
|                                        |                                                                                                                                                                  |           |              |
|                                        |                                                                                                                                                                  |           |              |
| EPA Lead Inspector<br>Signature/Date   | <br>Digitally signed by MICHAEL WILLIAMS<br>Date: 2023.11.09 10:27:51 -06'00' |           |              |
|                                        | Michael D. Williams                                                                                                                                              |           | Date         |
| Supervisor<br>Signature/Date           | <b>ROBERTO BERNIER</b><br>Digitally signed by ROBERTO BERNIER<br>Date: 2023.11.09 11:56:54 -06'00'                                                               |           |              |
|                                        | Roberto Bernier                                                                                                                                                  |           | Date         |

## **Section I - Introduction**

### **PURPOSE OF THE INSPECTION**

EPA Region 6 inspector, Michael Williams, the Arkansas Department of Environmental Quality inspectors Brent Walker, and Wayne Reynolds, arrived at the City of Walnut Ridge Wastewater Treatment Plant (WWTP) at 10:18 a.m. on August 21, 2023, for an unannounced EPA NPDES wastewater treatment inspection. During the opening conference, I met with Jeremy Lewis, the Operator. Mr. Lewis was informed that this was an EPA lead compliance evaluation inspection to determine compliance with the facility's National Pollutant Discharge Elimination System (NPDES) permit and the Clean Water Act. The scope of the inspection was with permit AR0046566, facility operations, and maintenance under the Clean Water Act. The inspection was conducted under the authority of the NPDES permit program, per the Federal CWA.

The information presented in this report is based on the materials and information supplied by the City of Walnut Ridge representatives, observations made during the inspection, and records and reports maintained by the permittee.

### **FACILITY DESCRIPTION**

The Walnut Ridge Wastewater Treatment Plant, situated within the City of Walnut Ridge, is designed to manage a flow rate of 1.25 million gallons per day, commonly denoted as 1.25-MGD. This treatment facility employs a process known as the Sequencing Batch Reactor (SBR) method, and it incorporates the use of mechanical bar screens and screw bar screens to ensure efficient operation. The plant is equipped with three SBR units.

The SBR process is a fill-and-draw activated sludge system designed for the treatment of wastewater. In this system, wastewater is methodically introduced into a single "batch" reactor, where it undergoes a comprehensive treatment process aimed at removing undesirable components and impurities. This process encompasses various critical stages, including equalization, aeration, and clarification, all of which are seamlessly achieved within the confines of a single batch reactor.

The facility wastes solids from the SPRs to the onsite lagoon to manage the solid inventory in the SBRs.

In the final disinfection process, a combination of peracetic acid and sodium bisulfate is employed to achieve the desired disinfection levels. After the treatment process has been completed is the final effluent discharged.

## **Section II- Observations**

This inspection revealed the following observations:

- During the inspection day, the sole means of reaching the mechanical and screw bar screen was via a ladder attached to an 18-foot platform. Access to this platform was a daily necessity, and in order to conduct repairs, the facility's personnel had to manually transport an 8-foot ladder up to the platform.

- On the day of the inspection, the final flow channel in the City of Walnut Ridge, originally intended as a chlorine contact chamber, exhibited the discharge of visible solids from its outfall. This channel is equipped with a surface aerator, which serves to agitate within the chamber. The surface aerator is employed to enhance oxygen levels before the discharge process.
- The City of Walnut Ridge lacks an on-site digester. Instead, the site currently utilizes an on-site lagoon for the disposal of waste generated by the SBRs.
- The City of Walnut Ridge had not established a procedure or method for determining the necessary quantity of peracetic acid required to achieve disinfection at different flow rates to comply with permit requirements.
- The City of Walnut Ridge is still having issues meeting permit limitations after the recent modification of the facility. The city needs to identify defiances within the current system and operations to optimize operations and meet compliance with the permit.

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

This inspection revealed the following areas of concern:

- Walnut Ridge has not ensured sufficient access to the headworks, especially during wet weather conditions, which is essential for operators to safely maintain and service the bar screens.
- The city has surpassed the fecal coliform limits. Presently, the Walnut Ridge WWTP does not inject peracetic acid in proportion to the flow, impacting its disinfection process.
- The City of Walnut Ridge has not put in place standardized operating procedures for determining capacity limits when disposing of solids in the lagoon used as a digester. Additionally, there is no staff gauge in place to indicate the volume or capacity required to accommodate wet weather events.

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

- Appendix 1 – Photo Log

## Appendix 1

### Photograph Log



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

## Photograph Log

Photo No. 1

|                             |                         |                 |
|-----------------------------|-------------------------|-----------------|
| Location: Walnut Ridge WWTP |                         |                 |
| City: Walnut Ridge          | County/Parish: Lawrence | State: Arkansas |





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 2

|                             |                         |                 |
|-----------------------------|-------------------------|-----------------|
| Location: Walnut Ridge WWTP |                         |                 |
| City: Walnut Ridge          | County/Parish: Lawrence | State: Arkansas |





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 3

|                             |                         |                 |
|-----------------------------|-------------------------|-----------------|
| Location: Walnut Ridge WWTP |                         |                 |
| City: Walnut Ridge          | County/Parish: Lawrence | State: Arkansas |





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 4

|                             |                         |                 |
|-----------------------------|-------------------------|-----------------|
| Location: Walnut Ridge WWTP |                         |                 |
| City: Walnut Ridge          | County/Parish: Lawrence | State: Arkansas |





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

## Photograph Log

Photo No. 5

|                             |                         |                 |
|-----------------------------|-------------------------|-----------------|
| Location: Walnut Ridge WWTP |                         |                 |
| City: Walnut Ridge          | County/Parish: Lawrence | State: Arkansas |





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

## Photograph Log

Photo No. 6

|                             |                         |                 |
|-----------------------------|-------------------------|-----------------|
| Location: Walnut Ridge WWTP |                         |                 |
| City: Walnut Ridge          | County/Parish: Lawrence | State: Arkansas |

