

United States Environmental Protection Agency Region 4

Enforcement and Compliance Assurance Division

Water Enforcement Branch

61 Forsyth Street, SW

Atlanta, Georgia 30303



Compliance Evaluation Inspection Report

Project No.: CV-MS0053503-6-4-2024

Pearl River Wastewater Treatment Plant

James Billy Road

Choctaw, Neshoba County, Mississippi 39350

NPDES Permit No.: MS0053503

Date of Inspection: June 4, 2024

Project ID: CV-MS0053503-6-4-2024

Title and Approval Sheet

Title: Pearl River WWTP Compliance Evaluation Inspection

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I. INTRODUCTION

Representatives of the United States Environmental Protection Agency (EPA), Region 4 conducted a Compliance Evaluation Inspection (CEI) of the Pearl River Wastewater Treatment Plant (WWTP), owned by the Mississippi Band of Choctaw Indians and operated by Inframark. The EPA issued NPDES permit number MS0053503 (Permit) to the facility for the discharge of treated municipal wastewater into navigable waters, subject to specific terms and conditions. The inspection was conducted under the authority of Section 308 of the Clean Water Act (CWA), as amended.

II. PARTICIPANTS

An opening conference was held on June 4, 2024, at the Choctaw Public Works Department. Participants in the inspections included:

<u>Name</u>	<u>Position</u>	<u>E mail</u>
Tristan Odekirk	EPA, Region 4, Inspector	Odekirk.Tristan@epa.gov
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Aaron Moines	Inframark, Operator	

III. INSPECTION PROCEDURES

The overall objective of this CEI was to evaluate the conditions and operational performance of the Pearl River WWTP and offer compliance assistance as needed. Specific tasks included conducting an opening conference, interviews with staff, reviewing Discharge Monitoring Reports (DMRs) and other facility records, conducting a walkthrough to the WWTP, and a closing conference.

IV. FACILITY DESCRIPTION

Wastewater enters the facility through the headworks. Grit is removed from the influent via a comminutor. Following screening three pumps convey wastewater to the rest of the plant. The three pumps alternate on a 24-hour cycle to lessen wear on any individual unit. Pumped water passes through an influent flow meter. A splitter box divides water between three aeration basins. Each aeration basin has three aerators. All aerators were operational. Following aeration wastewater is sent through three in-series clarifiers. Clarifier sludge is sent back to the aerators. Clarified water is disinfected with ultraviolet light before discharging to Wolf Creek, a tributary to Pearl River.

V. FINDINGS AND CONCLUSIONS

1. Permit

NPDES Permit No. MS0053503 became effective on July 1, 2019, and will expire June 30, 2024. A copy of the permit was available at the facility offices.

2. Records/Reports Review

The EPA evaluated monthly submitted DMR data submitted by MBCI Utilities for the years of 2021 through 2024. A review of EPA's Integrated Compliance Information System (ICIS) database shows that the Pearl River WWTP reported several effluent exceedances for copper, E. coli, pH, Total Suspended Solids (TSS), 5-day Carbonaceous Biochemical Oxygen Demand (CBOD₅), and ammonia-nitrogen. A summary of DMR effluent limit exceedances is listed in Appendix 1, Table 1.

DMRs and contract lab reports were available at the facility. EPA reviewed the DMRs and lab reports and found no discrepancies.

3. Operation & Maintenance

The Pearl River WWTP is operated by a level 4 operator. The following observations were made during the inspection:

- The headworks comminutor was non-operational.
- Facility personnel stated that the headworks flow measurement was inaccurate.
- The composite sampler located at the headworks did not have a functioning thermometer.
- Heavy persistent foaming was observed in the aeration chamber (Photo 1).
- Empty barrels that previously held sludge conditioning polymers were stored outside without caps.
- Dried sludge was stored in an exposed, albeit tarp lined, dumpster. This would allow rainwater to enter the dried sludge.

4. Sludge Handling

Wasted sludge is sent to a bioreactor to be thickened. Polymer is added to thickened sludge before it is sent through a press to dewater. Dewatered sludge is dried and hauled to the Pine Ridge Landfill.

5. Sampling/Laboratory

In situ measurements, most laboratory analysis, and sample collection are performed by the facility. Field measurements include pH, dissolved oxygen, and temperature. Laboratory analysis conducted by the MBCI include CBOD₅, TSS, Ammonia-Nitrogen, and E. coli.

Contract laboratories are used for Whole Effluent Toxicity (WET) testing, copper, hardness, and metals. WET testing is performed by Element Labs in Louisiana. Copper, hardness, and metals are analyzed by

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Waypoint Analytics in Ridgeland, Mississippi.

Samples collected by the facility are immediately brought to the MBCI laboratory. Samples are transported in designated coolers and stored in a specified refrigerator. The sample refrigerator did not have a thermometer. Stock calibration solutions were up to date and not expired. Chain of custody forms were reviewed and showed no discrepancies and had all appropriate signatures. The commercial laboratories were not evaluated.

6. Flow Measurement

Final effluent flow is measured by an ultrasonic flow meter at a V-notch weir (Photo 2). The flow meter was calibrated on 3/6/2024.

7. Effluent and Receiving Waters

Receiving waters were not inspected due to lack of access.

VI. DISCUSSION AND RECOMMENDATIONS

The EPA makes the following recommendations:

- a. The permittee should have a functioning headworks to effectively remove larger solids from the treatment processes.
- b. The influent flow meter should be regularly calibrated to reflect accurate flow readings.
- c. The influent composite sampler should have a functioning thermometer and climate control system to ensure proper storage of samples.
- d. Barrels that contain or have contained chemicals should be stored with lids on where rainwater cannot enter them.
- e. The permittee should monitor the mixed liquor suspended solids (MLSS) levels in the aeration basin to adequately control foaming and solids content.
- f. Dried sludge should not come into contact with rainwater.

Appendices:

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Appendix 1: DMR violation tables

Table 1: DMR Effluent Violations

Monitoring Period End Date	Parameter	DMR Value	Permit Limit Value	Units
7/31/2021	Copper, total recoverable	19	18.76	ug/L
8/31/2021	E. coli	2419	410	#/100mL
8/31/2021	E. coli	163	126	#/100mL
11/30/2021	pH	6.2	6.5	SU
6/30/2022	pH	6.3	6.5	SU
8/31/2022	E. coli	2420	410	#/100mL
8/31/2022	E. coli	620	126	#/100mL
8/31/2022	Solids, suspended percent removal	79.3	85	%
9/30/2022	E. coli	2420	410	#/100mL
9/30/2022	E. coli	846	126	#/100mL
10/31/2022	pH	5.8	6.5	SU
12/31/2022	E. coli	461	410	#/100mL
12/31/2022	pH	5.7	6.5	SU
6/30/2023	BOD, carb-5 day, 20 deg C, percent removal	82.7	85	%
6/30/2023	BOD, carb-5 day, 20 deg C, percent removal	82.7	85	%
6/30/2023	E. coli	2420	410	#/100mL
6/30/2023	E. coli	2420	410	#/100mL
6/30/2023	E. coli	218	126	#/100mL
6/30/2023	E. coli	218	126	#/100mL
7/31/2023	BOD, carb-5 day, 20 deg C, percent removal	82.5	85	%
7/31/2023	BOD, carbonaceous [5 day, 20 C]	15.8	10	mg/L
7/31/2023	BOD, carbonaceous [5 day, 20 C]	119.5	34.2	lb/d
7/31/2023	BOD, carbonaceous [5 day, 20 C]	39	15	mg/L
7/31/2023	BOD, carbonaceous [5 day, 20 C]	304.1	51.3	lb/d
7/31/2023	Copper, total recoverable	23.9	18.76	ug/L
7/31/2023	E. coli	2420	410	#/100mL
7/31/2023	E. coli	2420	126	#/100mL
7/31/2023	Nitrogen, ammonia total [as N]	10.8	2	mg/L
7/31/2023	Nitrogen, ammonia total [as N]	79.1	25	lb/d
7/31/2023	Nitrogen, ammonia total [as N]	102.4	37.5	lb/d
7/31/2023	Nitrogen, ammonia total [as N]	13.8	3	mg/L
7/31/2023	Solids, suspended percent removal	76.5	85	%
7/31/2023	Solids, total suspended	41	30	mg/L
7/31/2023	Solids, total suspended	564.4	563	lb/d
7/31/2023	Solids, total suspended	83	45	mg/L
8/31/2023	E. coli	2420	410	#/100mL
9/30/2023	Nitrogen, ammonia total [as N]	3.3	3	mg/L

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Monitoring Period End Date	Parameter	DMR Value	Permit Limit Value	Units
10/31/2023	E. coli	411	410	#/100mL
10/31/2023	E. coli	151	126	#/100mL
11/30/2023	Copper, total recoverable	20.5	18.76	ug/L
11/30/2023	E. coli	1986	410	#/100mL
12/31/2023	Copper, total recoverable	19.6	18.76	ug/L
1/31/2024	Copper, total recoverable	26	18.76	ug/L
1/31/2024	Solids, suspended percent removal	74	85	%
1/31/2024	Solids, total suspended	36	30	mg/L
1/31/2024	Solids, total suspended	48	45	mg/L
2/29/2024	Copper, total recoverable	40.5	27.19	ug/L
2/29/2024	Copper, total recoverable	40.5	18.76	ug/L
3/31/2024	Copper, total recoverable	27.1	18.76	ug/L

Table 2: Late DMR history

Monitoring Period End Date	Days Late
3/31/2021	84
6/30/2022	4
12/31/2022	5
4/30/2023	31
5/31/2023	31
5/31/2023	31
6/30/2023	31
7/31/2023	26
8/31/2023	26
9/30/2023	26
10/31/2023	5
11/30/2023	5
12/31/2023	5

Table 3: WET testing history

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Appendix 2: Photo Log



Photo 1: Thick foam observed in aeration basin.

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Photo 2: flow measurement (90 degrees V notch Weir) following clarification and disinfection.

END OF REPORT