



REGION 4

ATLANTA, GA 30303

November 20, 2023

ELECTRONIC EMAIL

CONFIRMATION OF EMAIL RECEIPT REQUESTED

Wayne Spell
General Manager
DeSoto County Regional Utilities Authority
365 Loshier St, Ste 310
Hernando, Mississippi, 38632
Email: WSpell@digitdesoto.com

Re: Compliance Evaluation Inspection Report
NPDES Permit No. MS0028479 Metro DeSoto WWTP

Dear William Spell:

The U.S. Environmental Protection Agency, Region 4, and the Mississippi Department of Environmental Protection conducted a Compliance Evaluation Inspection (CEI) of the Metro DeSoto Wastewater Treatment Plant located at 11299 State Line Road, Olive Branch, Mississippi on October 11, 2023, for compliance with its National Pollutant Discharge Elimination System permit and the Clean Water Act.

The inspection findings are provided in the enclosed CEI Report. If you have any questions concerning the inspection report, please contact Tristan Odekirk at 404-562-9295 or via email at Odekirk.Tristan@epa.gov.

Sincerely,

JAIRO

CASTILLO

Jairo Castillo, P.E., Chief

Wastewater Enforcement Section

Water Enforcement Branch

Digitally signed by JAIRO
CASTILLO
Date: 2023.11.20
14:04:44 -05'00'

Enclosure

cc: James Gammill
Mississippi Department of Environmental Quality
JGammill@ms.mdeq.gov

Bryan Lane
Mitchell Technical Services
Mts.BryanLane@gmail.com

Riki Childress, Operator
Metro DeSoto WWTP
RikiChildress@yahoo.com

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

Metro DeSoto Wastewater Treatment Plant

NPDES Permit No. MS0028479

Facility Address:

11299 State Line Road

Olive Branch, MS 38654

Inspection Date:

11/10/2023

Inspectors:

Tristan Odekirk, Environmental Engineer, EPA Region 4

Project ID: CV-MS0028479-11102023

Title and Approval Sheet

Title: Compliance Evaluation Inspection Metro DeSoto Wastewater Treatment Plant

Approving Official:

JAIRO
CASTILLO

Digitally signed by JAIRO
CASTILLO
Date: 2023.11.20
14:02:38 -05'00'

Jairo Castillo, P.E., Chief
Wastewater Enforcement Section
Water Enforcement Branch

Enforcement Officer:

TRISTAN
ODEKIRK

Digitally signed by
TRISTAN ODEKIRK
Date: 2023.11.20
13:55:11 -05'00'

Tristan Odekirk, Inspector
Wastewater Enforcement Section
Water Enforcement Branch

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I. INTRODUCTION

Representatives of the United States Environmental Protection Agency, Region 4, and the Mississippi Department of Environmental Quality (MDEQ) conducted a Compliance Evaluation Inspection (CEI) of the Metro DeSoto Wastewater Treatment Plant (WWTP), owned and operated by the DeSoto County Regional Utility Authority (DCRUA). The State of Mississippi is authorized to administer the National Pollutant Discharge Elimination System (NPDES) program pursuant to Section 402 of the Clean Water Act (CWA), 33 U.S.C. § 1342, and issued NPDES permit number MS0028479 (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 October 11, 2023, at the Metro DeSoto WWTP. 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
James Gammill	MDEQ, Inspector	JGammill@mdeq.gov
Riki Childress	DCRUA, Operator	RikiChildress@yahoo.com
Bryan Lane	MTS, Regional Projects Manager	mts.BryanLane@gmail.com
Cameron Smith	DCRUA, Technician	

III. INSPECTION PROCEDURES

The objective of this CEI was to evaluate the conditions and operational performance of the 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 Metro DeSoto WWTP, and a closing conference.

IV. FACILITY DESCRIPTION

The WWTP primarily provides industrial and domestic wastewater treatment for the Metro Industrial Park. The majority of the flow is from industrial process wastewater from the Industrial Park. Influent is pumped into the station through a headworks pump. The wastewater passes through a mechanical screen before entering the treatment train. The treatment train begins with an aerated lagoon. After the lagoon, lime is added, and the flow goes through four aeration basins in series. Wastewater then passes into two equalization basins to settle solids out. Finally, water is disinfected with sodium hypochlorite and dechlorinated with sodium bisulfate. Treated water passes over a cascade aerator and finally a parshall flume for flow measurement. Treated effluent discharges through outfall 001 to an unnamed tributary of Nonconnah Creek.

DCRUA has constructed two sequencing batch reactors and a metals removal chamber. Neither process was operational at the time of the inspection.

V. FINDINGS AND CONCLUSIONS

1. Permit

The permit was issued May 24, 2019, and expires April 30, 2024. The Facility is permitted to discharge from outfall 001 to an unnamed tributary of Nonconnah Creek. DMRs are due monthly by the 28th day of the following month. A copy of the permit was available at the WWTP.

2. Records/Reports

The EPA evaluated DMR data submitted by DCRUA for the reporting periods between July 2020 and August 2023. A review of EPA's Integrated Compliance Information System database shows that DCRUA reported numerous effluent permit exceedances which include exceedances for 5-day Biochemical Oxygen Demand, Total Suspended Solids, Nitrogen, Phosphorus, and Copper. A summary of DMR effluent exceedances is listed in Appendix 1.

As of June 27, 2019, the facility has been under an Agreed Order (AO) from the state of Mississippi. The AO requires DCRUA to pay a monetary penalty and to construct a new treatment facility. DMRs and contract lab reports were available at the facility.

3. Operation & Maintenance

The Facility is operated by a level four operator and other facility staff. During the inspection the facility was transferring to a new process train to incorporate the new facility structures.

4. Sludge Handling

Solids were not assessed during the inspection.

5. Sampling/Laboratory

All laboratory analyses are collected and conducted by a commercial laboratory:

Waypoint Analytical
235 Highpoint Dr.
Ridgeland, MS 39157
(601) 957-2676

Chain of custody forms were reviewed. The forms were properly filled out with appropriate signatures. In situ measurements for process operation are collected by the facility and recorded in operator logbooks. The commercial laboratory was not evaluated.

6. Flow Measurement

Flow is measured at a Parshall Flume with a sonic flow meter. No calibration records were present at the facility.

7. Effluent and Receiving Waters

Facility flow was very low during the inspection. Receiving waters were not assessed.

VI. DISCUSSION AND RECOMMENDATIONS

As stated in previous sections, the facility is currently under an Agreed Order from the State of Mississippi requiring the construction of a new facility. During the inspection, the EPA observed contractor crews actively transferring the process train to incorporate the new treatment units.

COMPLIANCE EVALUATION INSPECTION REPORT
Metro DeSoto Utilities - CV-MS0028479-11102023

Appendix 1: DMR Effluent Exceedance Summary Table

Monitoring Period End Date	Parameter Description	Statistical Base	Permit Limit Value	DMR Value	Unit
7/31/2020	Solids, total suspended	MX WK AV	45	47	mg/L
7/31/2020	Solids, total suspended	MO AVG	39	47	mg/L
7/31/2020	Copper, total recoverable	MX WK AV	0.0315	0.0399	mg/L
7/31/2020	Copper, total recoverable	MO AVG	0.0254	0.0399	mg/L
9/30/2020	Nitrogen, ammonia total [as N]	MX WK AV	8	10	mg/L
9/30/2020	Nitrogen, ammonia total [as N]	MO AVG	8	10	mg/L
12/31/2020	Copper, total recoverable	MO AVG	0.0254	0.0359	mg/L
12/31/2020	Copper, total recoverable	MX WK AV	0.0315	0.0376	mg/L
9/30/2021	Copper, total recoverable	MO AVG	0.0254	0.0316	mg/L
9/30/2021	Copper, total recoverable	MX WK AV	0.0315	0.0381	mg/L
10/31/2021	Solids, total suspended	MO AVG	202	290	lb/d
10/31/2021	Solids, total suspended	MX WK AV	202	290	lb/d
10/31/2021	Solids, total suspended	MO AVG	39	52	mg/L
10/31/2021	Solids, total suspended	MX WK AV	45	52	mg/L
10/31/2021	Nitrogen, ammonia total [as N]	MO AVG	8	13.2	mg/L
10/31/2021	Nitrogen, ammonia total [as N]	MX WK AV	8	13.2	mg/L
10/31/2021	Nitrogen, ammonia total [as N]	MX WK AV	46	74	lb/d
10/31/2021	Nitrogen, ammonia total [as N]	MO AVG	46	74	lb/d
10/31/2021	Phosphorus, total [as P]	MO AVG	27	33	lb/d
10/31/2021	Copper, total recoverable	MX WK AV	0.0315	0.0494	mg/L
10/31/2021	Copper, total recoverable	MO AVG	0.0254	0.0494	mg/L
11/30/2021	Solids, total suspended	MX WK AV	45	63	mg/L
11/30/2021	Solids, total suspended	MO AVG	39	63	mg/L
11/30/2021	Solids, total suspended	MX WK AV	202	367	lb/d
11/30/2021	Solids, total suspended	MO AVG	202	367	lb/d
11/30/2021	Nitrogen, ammonia total [as N]	MO AVG	46	92	lb/d
11/30/2021	Nitrogen, ammonia total [as N]	MX WK AV	46	92	lb/d
11/30/2021	Nitrogen, ammonia total [as N]	MX WK AV	8	16	mg/L
11/30/2021	Nitrogen, ammonia total [as N]	MO AVG	8	16	mg/L
11/30/2021	Phosphorus, total [as P]	MO AVG	27	54	lb/d
11/30/2021	Copper, total recoverable	MO AVG	0.0254	0.027	mg/L
12/31/2021	Solids, total suspended	MO AVG	39	59	mg/L
12/31/2021	Solids, total suspended	MX WK AV	45	59	mg/L
12/31/2021	Nitrogen, ammonia total [as N]	MO AVG	8	11	mg/L
12/31/2021	Nitrogen, ammonia total [as N]	MX WK AV	8	11	mg/L
12/31/2021	Copper, total recoverable	MO AVG	0.0254	0.043	mg/L
12/31/2021	Copper, total recoverable	MX WK AV	0.0315	0.043	mg/L
1/31/2022	BOD, 5-day, 20 deg. C	MO AVG	97	123.1	lb/d
1/31/2022	BOD, 5-day, 20 deg. C	MO AVG	17	25.5	mg/L

COMPLIANCE EVALUATION INSPECTION REPORT
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Monitoring Period End Date	Parameter Description	Statistical Base	Permit Limit Value	DMR Value	Unit
1/31/2022	BOD, 5-day, 20 deg. C	MX WK AV	17	25.5	mg/L
1/31/2022	BOD, 5-day, 20 deg. C	MX WK AV	97	123.1	lb/d
1/31/2022	Solids, total suspended	MO AVG	39	94.5	mg/L
1/31/2022	Solids, total suspended	MX WK AV	45	94.5	mg/L
1/31/2022	Solids, total suspended	MX WK AV	202	455.7	lb/d
1/31/2022	Solids, total suspended	MO AVG	202	455.7	lb/d
1/31/2022	Nitrogen, ammonia total [as N]	MX WK AV	46	62	lb/d
1/31/2022	Nitrogen, ammonia total [as N]	MO AVG	46	62	lb/d
1/31/2022	Nitrogen, ammonia total [as N]	MX WK AV	8	12.9	mg/L
1/31/2022	Nitrogen, ammonia total [as N]	MO AVG	8	12.9	mg/L
1/31/2022	Phosphorus, total [as P]	MO AVG	27	35.8	lb/d
1/31/2022	Copper, total recoverable	MX WK AV	0.0315	0.036	mg/L
1/31/2022	Copper, total recoverable	MO AVG	0.0254	0.036	mg/L
2/28/2022	BOD, 5-day, 20 deg. C	MX WK AV	97	116.3	lb/d
2/28/2022	BOD, 5-day, 20 deg. C	MX WK AV	17	22	mg/L
2/28/2022	BOD, 5-day, 20 deg. C	MO AVG	17	22	mg/L
2/28/2022	BOD, 5-day, 20 deg. C	MO AVG	97	116.3	lb/d
2/28/2022	Solids, total suspended	MO AVG	202	264.2	lb/d
2/28/2022	Solids, total suspended	MX WK AV	202	264.2	lb/d
2/28/2022	Solids, total suspended	MO AVG	39	50	mg/L
2/28/2022	Solids, total suspended	MX WK AV	45	50	mg/L
2/28/2022	Nitrogen, ammonia total [as N]	MO AVG	8	14.3	mg/L
2/28/2022	Nitrogen, ammonia total [as N]	MX WK AV	8	14.3	mg/L
2/28/2022	Nitrogen, ammonia total [as N]	MO AVG	46	75.3	lb/d
2/28/2022	Nitrogen, ammonia total [as N]	MX WK AV	46	75.3	lb/d
2/28/2022	Phosphorus, total [as P]	MO AVG	27	36.9	lb/d
2/28/2022	Copper, total recoverable	MO AVG	0.0254	0.043	mg/L
2/28/2022	Copper, total recoverable	MX WK AV	0.0315	0.043	mg/L
3/31/2022	BOD, 5-day, 20 deg. C	MO AVG	17	19	mg/L
3/31/2022	BOD, 5-day, 20 deg. C	MX WK AV	17	19	mg/L
3/31/2022	Solids, total suspended	MX WK AV	45	65	mg/L
3/31/2022	Solids, total suspended	MO AVG	39	65	mg/L
3/31/2022	Solids, total suspended	MX WK AV	202	313.7	lb/d
3/31/2022	Solids, total suspended	MO AVG	202	313.7	lb/d
3/31/2022	Nitrogen, ammonia total [as N]	MO AVG	46	57	lb/d
3/31/2022	Nitrogen, ammonia total [as N]	MX WK AV	46	57	lb/d
3/31/2022	Nitrogen, ammonia total [as N]	MX WK AV	8	12.1	mg/L
3/31/2022	Nitrogen, ammonia total [as N]	MO AVG	8	12.1	mg/L
3/31/2022	Copper, total recoverable	MO AVG	0.0254	0.03	mg/L
4/30/2022	BOD, 5-day, 20 deg. C	MX WK AV	97	103.5	lb/d
4/30/2022	BOD, 5-day, 20 deg. C	MX WK AV	17	19.5	mg/L
4/30/2022	BOD, 5-day, 20 deg. C	MO AVG	97	103.5	lb/d
4/30/2022	BOD, 5-day, 20 deg. C	MO AVG	17	19.5	mg/L

COMPLIANCE EVALUATION INSPECTION REPORT
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Monitoring Period End Date	Parameter Description	Statistical Base	Permit Limit Value	DMR Value	Unit
4/30/2022	Solids, total suspended	MO AVG	202	481.5	lb/d
4/30/2022	Solids, total suspended	MX WK AV	202	661.8	lb/d
4/30/2022	Solids, total suspended	MO AVG	39	91.3	mg/L
4/30/2022	Solids, total suspended	MX WK AV	45	126	mg/L
4/30/2022	Nitrogen, ammonia total [as N]	MO AVG	8	9.8	mg/L
4/30/2022	Nitrogen, ammonia total [as N]	MX WK AV	8	9.8	mg/L
4/30/2022	Nitrogen, ammonia total [as N]	MO AVG	46	51.5	lb/d
4/30/2022	Nitrogen, ammonia total [as N]	MX WK AV	46	51.5	lb/d
7/31/2022	Nitrogen, ammonia total [as N]	MO AVG	46	59.8	lb/d
7/31/2022	Nitrogen, ammonia total [as N]	MX WK AV	46	59.8	lb/d
7/31/2022	Nitrogen, ammonia total [as N]	MX WK AV	8	10.9	mg/L
7/31/2022	Nitrogen, ammonia total [as N]	MO AVG	8	10.9	mg/L
11/30/2022	Solids, total suspended	MX WK AV	45	75	mg/L
11/30/2022	Solids, total suspended	MO AVG	39	75	mg/L
11/30/2022	Solids, total suspended	MX WK AV	202	350.7	lb/d
11/30/2022	Solids, total suspended	MO AVG	202	350.7	lb/d
11/30/2022	Nitrogen, ammonia total [as N]	MO AVG	46	63.6	lb/d
11/30/2022	Nitrogen, ammonia total [as N]	MX WK AV	46	63.6	lb/d
11/30/2022	Nitrogen, ammonia total [as N]	MX WK AV	8	13.6	mg/L
11/30/2022	Nitrogen, ammonia total [as N]	MO AVG	8	13.6	mg/L
11/30/2022	Copper, total recoverable	MX WK AV	0.0315	0.041	mg/L
11/30/2022	Copper, total recoverable	MO AVG	0.0254	0.041	mg/L
12/31/2022	Solids, total suspended	MO AVG	202	225.5	lb/d
12/31/2022	Solids, total suspended	MX WK AV	202	225.5	lb/d
12/31/2022	Solids, total suspended	MO AVG	39	43	mg/L
12/31/2022	Nitrogen, ammonia total [as N]	MO AVG	8	10.1	mg/L
12/31/2022	Nitrogen, ammonia total [as N]	MX WK AV	8	10.1	mg/L
12/31/2022	Nitrogen, ammonia total [as N]	MO AVG	46	52.9	lb/d
12/31/2022	Nitrogen, ammonia total [as N]	MX WK AV	46	52.9	lb/d
12/31/2022	Copper, total recoverable	MO AVG	0.0254	0.0405	mg/L
12/31/2022	Copper, total recoverable	MX WK AV	0.0315	0.0405	mg/L
1/31/2023	BOD, 5-day, 20 deg. C	MO AVG	97	145	lb/d
1/31/2023	BOD, 5-day, 20 deg. C	MO AVG	17	24	mg/L
1/31/2023	BOD, 5-day, 20 deg. C	MX WK AV	17	24	mg/L
1/31/2023	BOD, 5-day, 20 deg. C	MX WK AV	97	145	lb/d
1/31/2023	Solids, total suspended	MX WK AV	45	72	mg/L
1/31/2023	Solids, total suspended	MO AVG	39	72	mg/L
1/31/2023	Solids, total suspended	MX WK AV	202	433.7	lb/d
1/31/2023	Solids, total suspended	MO AVG	202	433.7	lb/d
1/31/2023	Copper, total recoverable	MX WK AV	0.0315	0.0413	mg/L
1/31/2023	Copper, total recoverable	MO AVG	0.0254	0.0413	mg/L
2/28/2023	BOD, 5-day, 20 deg. C	MX WK AV	97	135	lb/d

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Monitoring Period End Date	Parameter Description	Statistical Base	Permit Limit Value	DMR Value	Unit
2/28/2023	BOD, 5-day, 20 deg. C	MX WK AV	17	32	mg/L
2/28/2023	BOD, 5-day, 20 deg. C	MO AVG	97	135	lb/d
2/28/2023	BOD, 5-day, 20 deg. C	MO AVG	17	32	mg/L
2/28/2023	Solids, total suspended	MO AVG	202	247.3	lb/d
2/28/2023	Solids, total suspended	MX WK AV	202	247.3	lb/d
2/28/2023	Solids, total suspended	MO AVG	39	58	mg/L
2/28/2023	Solids, total suspended	MX WK AV	45	58	mg/L
2/28/2023	Copper, total recoverable	MO AVG	0.0254	0.0277	mg/L
3/31/2023	Copper, total recoverable	MO AVG	0.0254	0.0309	mg/L
8/31/2023	Solids, total suspended	MO AVG	202	270.2	lb/d
8/31/2023	Solids, total suspended	MX WK AV	202	270.2	lb/d
8/31/2023	Solids, total suspended	MX WK AV	45	68.5	mg/L
8/31/2023	Solids, total suspended	MO AVG	39	68.5	mg/L
8/31/2023	Copper, total recoverable	MO AVG	0.0254	0.0476	mg/L
8/31/2023	Copper, total recoverable	MX WK AV	0.0315	0.0476	mg/L

END OF REPORT