



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

ELECTRONIC EMAIL
CONFIRMATION OF EMAIL RECEIPT REQUESTED

Mr. Jimmy L. Sanders, Mayor
Town of Artesia
101 North Front Street
Artesia, Mississippi 39736
gtsfamily04@ll.com

Re: Compliance Evaluation Inspection Report (CEI)
NPDES Permit No. MS0020770
Town of Artesia POTW

Dear Mayor Sanders:

The U.S. Environmental Protection Agency, Region 4, conducted a Compliance Evaluation Inspection of the Town of Artesia Publicly Owned Treatment Works located at 22 Front Road, Artesia, Mississippi 39736, for compliance with its National Pollutant Discharge Elimination System permit and the Clean Water Act.

The inspection findings are provided in the enclosed Compliance Evaluation Inspection 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,

**Castillo,
Jairo**

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

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Castillo, Jairo
Date: 2022.08.03
10:41:59 -04'00'

Enclosure

cc: Ms. Michelle Clark
Mississippi Department of Environmental Quality

Stanley Spradling
Calvert-Spradling Engineers Inc

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

Artesia Publicly Owned Treatment Works

NPDES Permit No. MS0020770

Facility Address:

22 Front Road
Artesia, MS 39736

Inspection Date:

6/7/2022

Inspectors:

Tristan Odekirk, Environmental Engineer, EPA Region 4
Richard Elliott, Environmental Engineer, EPA Region 4

Inspection Report Prepared by:

Tristan Odekirk
July 18, 2022

Project ID: CV-MS0020770-06072022

Title and Approval Signature Page

Title: Compliance Evaluation Inspection Report
Artesia POTW, Artesia, MS

Enforcement Officer:

TRISTAN
ODEKIRK

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TRISTAN ODEKIRK
Date: 2022.08.03
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Tristan Odekirk, Environmental Engineer
Wastewater Enforcement Section
Water Enforcement Branch

8/3/2022

Date

Approving Official:

Castillo, Jairo

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

8/3/2022

Date

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I. INTRODUCTION

Representatives of the United States Environmental Protection Agency, Region 4, conducted a Compliance Evaluation Inspection (CEI) of the Artesia Publicly Owned Treatment Works (POTW), owned and operated by the City of Artesia, Mississippi. The Mississippi Department of Environmental Quality (MDEQ) 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 MS0020770 (Permit) to the facility and its associated wastewater collection and transmission system 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.

An opening conference was held on June 7, 2022, at the Artesia Town Hall. Participants in the inspections included:

<u>Name</u>	<u>Position</u>	<u>Phone Number</u>
Tristan Odekirk	EPA, Region 4, Inspector	404-562-9295
Richard Elliott	EPA, Region 4, Inspector	404-562-8691
Stanley Spradling	Calvert-Spradling Engineers Inc, Consulting Engineer	662-295-7101
Jimmy Sanders	Town of Artesia, Mayor	662-435-2414

II. INSPECTION PROCEDURES

The overall objective of this CEI was to evaluate the conditions and operational performance of the wastewater treatment plant (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 Artesia POTW, and a closing conference.

III. FACILITY DESCRIPTION

The Artesia POTW treats municipal wastewaters. The facility is a 3-celled lagoon which is permitted to treat 0.1 million gallons per day. The WWTP serves the town of Artesia with no industrial users. Treated effluent discharges into an unnamed tributary of Catalpa Creek, a traditionally navigable water of the U.S.

Municipal wastewater from the Town of Artesia enters the Artesia POTW through a pump station located at the WWTP (Photo 1). Wastewater is pumped into the first of three lagoons that operate in series. Lagoon 01 is approximately 3 acres in size and is not aerated (Photo 2). Lagoon 02 is approximately 1 acre with one surface aerator. The orientation of the lagoon inlet, outlet, and the aerator placement in this lagoon increases the potential for short circuiting in lagoon 02 (Photo 3). Lagoon 03 is approximately 0.6 acres and divided in two by a polyurethane baffle. At the end of lagoon 03 is a rotating biological contactor. Wastewater leaves lagoon 03 and enters a 1 acre constructed wetland (Photo 4). The constructed wetland is a baffled subsurface flow wetland. The wetland substrate is gravel and is planted with a bull rush reed bed. After exiting the wetland, treated effluent passes through a chlorine tablet disinfection system (Photo 5). The effluent is subsequently dechlorinated using hydrogen sulfide (Photo 6). Final effluent is then discharged to the receiving waters. The effluent pipe could not

be seen during the inspection.

IV. FIELD EVALUATION

1. Permit

NPDES Permit No. MS0020770 became effective on January 12, 2021 and expires December 31, 2025. The permit specifies that the facility discharges to an unnamed tributary of Catalpa Creek. DMRs are due quarterly on the 28th day of the month following the quarter. A copy of the permit was available at the Town of Artesia City Hall.

2. Records/Reports

A review of EPA's Enforcement and Compliance History Online showed that the facility has had various effluent violations for 11 of the past 12 quarters. These include violations for 5-day biochemical oxygen demand, total residual chlorine, fecal coliforms, in conduit flow, nitrogen as ammonia, dissolved oxygen and total suspended solids. In the most recent quarter (January 1 to March 31, 2022) the facility had effluent violations for in conduit flow, nitrogen as ammonia, and dissolved oxygen. EPA asked facility personnel about these violations. Facility personnel stated that ammonia had been a long-time issue at the WWTP. The ammonia violations are one of the main reasons for a recent rehabilitation of various facility components, which included the installation of new aerators and new aerator configurations.

Facility schematics, an up-to-date permit, and facility DMRs were available at the town hall. Operators' logs were up to date and properly initialed. No records deficiencies were noted. The Town of Artesia is currently under an administrative order with the State of Mississippi for the effluent violations.

3. Operation & Maintenance

The Artesia POTW is operated by Budreau Marsac. The lagoons had considerable presence of duckweed and algae. Influent to lagoon 2 enters the lagoon in the middle of the eastern longitudinal edge. The influent enters the lagoon very close to the effluent discharge pipe. This configuration greatly increases the potential for short-circuiting in this lagoon. In addition, the placement of the aerator in this lagoon further increases the likelihood of short-circuiting and reduces the effective treatment area in the lagoon significantly.

The bull rush in the constructed wetland was overgrown and in need of harvesting. Ponding was observed in several locations in the wetland, indicating flow disruptions likely caused by overgrown bull rush in the wetland.

4. Sludge Handling

There was no evidence of excessive sludge build up at the facility. There was no record that sludge had ever been removed from the facility.

5. Sampling/Laboratory

All NPDES required samples are collected by the operator. All laboratory analyses are conducted by a commercial laboratory:

Envirolabs
603 E Gillespie St
Starkville, MS 39759
(662) 323-7744

The commercial laboratory was not evaluated.

6. Flow Measurement

Final effluent flow is measured by an ultrasonic flow meter. The flow meter had an up-to-date calibration sticker. The effluent also had a v-notch weir with a visible staff gauge.

7. Effluent and Receiving Waters

The wastewater effluent pipe could not be observed during the inspection due to vegetative growth around the receiving water body. However, no sheen or foam was observed in the treated effluent leaving the WWTP.

V. RECOMMENDATIONS

The Artesia POTW should consider the following recommendations:

- a. The aerator in Lagoon 02 should be moved to Lagoon 01 to improve wastewater aeration
- b. A baffle should be installed in Lagoon 02 to lengthen detention time and make use of the full lagoon.
- c. Duckweed should be removed from all three lagoons to improve aeration.
- d. The wetland reed bed should be harvested on a more frequent schedule.

ATTACHMENTS

1. Photo Log

COMPLIANCE EVALUATION INSPECTION REPORT
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Photo 1. Map of the facility in schematics reviewed. Map shows a second wetland area which was not constructed and thus not part of the facility.



Photo 2. Inlet pipes to Lagoon 01. Lagoon is covered in duckweed.

COMPLIANCE EVALUATION INSPECTION REPORT
Artesia POTW - CV-MS0020770-06072022



Photo 3. Lagoon 02. Air release for inlet pip seen on opposite shore. Aerator seen functioning in the foreground. Current layout causing possible short circuiting as evidenced by algae growth seen in back half of the lagoon.



Photo 4. Constructed subsurface flow wetland growing bull rush. Chlorination structure visible in background.



Photo 5. Effluent chlorinators.



Photo 6. Dechlorinators and flow measurement devices at effluent outlet.

END OF REPORT