



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

ELECTRONIC MAIL
CONFIRMATION OF EMAIL RECEIPT REQUESTED

Mr. Chris MacPhee
J.M. Cranor WTP
317 Rockland Road
Hendersonville, Tennessee 37075
CMacPhee@whud.org

Re: Reconnaissance Inspection Report, J.M. Cranor Water Treatment Plant
NPDES General Permit Notice of Intent No. TN0060861

Dear Mr. MacPhee:

The U.S. Environmental Protection Agency, Region 4 inspected the J.M. Cranor Water Treatment Plant (WTP) located at 317 Rockland Road, Hendersonville, TN 37075 on October 27, 2021. The objective of the inspection was to evaluate the permittee's compliance with its National Pollutant Discharge Elimination System (NPDES) permit and the Clean Water Act.

The inspection summary is provided in the enclosed Reconnaissance Inspection Report. If you have any questions about 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: 2021.12.14
16:38:37 -05'00'

Enclosure

cc Jessica Murphy
Tennessee Department of Environment and Conservation

**United States Environmental Protection Agency**

Region 4

CV-TN-0060861-10-27-2021

Reconnaissance Inspection Report**SECTION A: National Data System Coding**

NPDES No.	MO/DAY/YR	Inspection-Type	Inspector	Facility-Type
TN0060861	10/27/2021	ROS (Reconnaissance without Sampling)	Tristan Odekirk/Dennis Sayre	Publicly owned treatment works

SECTION B: Facility Data

Name and Location of Facility Inspected (For industrial users discharging to POTW, also include POTW name and NPDES permit number) J.M. Cranor WTP 317 Rockland Road Hendersonville, TN 37075	Entry Date/Time 10/27/2021 9:00 AM Exit Date/Time 10/27/2021 10:00 AM	Permit Effective Date 10/1/2020 Permit Expiration Date 7/31/2025
Names of On-site Representative(s)/Title(s)/Phone and Fax Number(s) Chris MacPhee, 615-672-4110, ext. 332 Bill Treanor, 615-672-4110, ext. 324	Other Facility Data n/a	
Name, Address of Responsible Official/Title/Phone and Fax Number Chris MacPhee J.M. Cranor WTP 317 Rockland Rd. Hendersonville, TN 37075	Contacted ☒ Yes ☐ No	

SECTION C: Areas Evaluated During Inspection (Check only those areas evaluated)

☒ Permit	☐ Flow Measurement	☐ Operation & Maintenance	☐ CSO/SSO (Sewer Overflow)
☒ Records/Reports	☐ Self-Monitoring Program	☐ Sludge Handling/Disposal	☐ Pollution Prevention
☒ Facility Site Review	☐ Compliance Schedules	☐ Pretreatment	☐ Multimedia
☐ Effluent/Receiving Waters	☐ Laboratory	☐ Storm Water	☐ Other:

D: Summary of Findings/Comments (Attach additional sheets of narrative and checklists as necessary)

Attached below.

Name(s) and Signature(s) of Inspector(s) Odekirk, Tristan Tristan Odekirk Digitally signed by Odekirk, Tristan Date: 2021.12.15 08:52:57 -05'00'	Agency/Division/Phone and Fax Number EPA/ECAD/(404) 562-9295	Date 12/14/2021
Signature of Management QA Reviewer JAIRO CASTILLO Jairo Castillo, P.E. Digitally signed by JAIRO CASTILLO Date: 2021.12.14 16:39:11 -05'00'	Agency/Division/Phone and Fax Number EPA/ECAD/(404) 562-9257	Date 12/14/2021



Section D: Summary of Findings / Comments

Introduction

On October 27, 2021, the U.S Environmental Protection Agency, Region 4 conducted a Reconnaissance Inspection (RI) at the J.M. Cranor Water Treatment Plant (WTP) located in Hendersonville, TN to inspect the facility's backwash wastewater treatment system associated with its National Pollutant Discharge Elimination System (NPDES) General Permit. EPA met with Mr. Chris MacPhee and Mr. Bill Treanor and reviewed the facility's monitoring records and discussed the facility's self-monitoring program. The inspection was conducted under the authority of Section 308 of the Clean Water Act (CWA), as amended. The following is a summary of the RI findings and observations.

Facility Description

The J.M. Cranor WTP is designed to treat approximately 20 million gallons per day (MGD) of water from the Cumberland river for use as potable water for the surrounding population. Incoming water is coagulated and flocculated before being sent through a Micropore filtration system. Filter backwashing is conducted two times per week. The backwash wastewater is sent to a settling pond. Solids from the settling pond are periodically dredged and sent to the Nashville municipal wastewater treatment plant while supernatant is chlorinated and discharged into a nearby unnamed tributary of the Cumberland River. The facility discharges on a monthly average approximately 1 to 1.5 MGD from the settling pond through Outfall 001.

Inspection Procedures

The objective of the inspection was to evaluate the permittee's compliance with its NPDES permit and the Clean Water Act. The inspection included an evaluation of the condition and operational performance of the WTP's backwash system and of the permittee's self-monitoring program. Specific tasks included conducting an opening conference, interviewing WTP staff, reviewing Discharge Monitoring Reports (DMRs) and other records, conducting a site visit, and holding a closing conference.

Findings and Conclusions

I. Permit

The WTP is permitted to discharge treated backwash wastewater to an unnamed tributary of the Central Branch Creek under Tennessee's NPDES General Permit for Discharges from Water Treatment Plants (Master General Permit No. TNG640000), Notice of Intent No. TN0060861. The NPDES permit allows a daily maximum value of 0.019 mg/l total residual chlorine (TRC) before October 1, 2020 and a daily maximum value of 0.01 mg/l TRC after October 1, 2020 (effective date of the most recent permit).

II. Records/Reports

The EPA's Integrated Compliance Information System (ICIS) shows that from August 2018 through June 2021, the facility exceeded TRC limits on five occasions and submitted TRC data late on 11 occasions. Table 1 below is a summary of violations for the past three years.



United States Environmental Protection Agency
Region 4
Reconnaissance Inspection Report
Project No. Project No. CV-TN-0060861-10-27-2021

Violation Type	Violation Information	Violation Code	Violation Date	RNC Detection Code-Date	RNC Resolution Code-Date
Effluent Violation	001 G 50060 Chlorine, total residual Effluent Gross Season ID:0 C3	E90	9/30/2018		
Effluent Violation	001 G 50060 Chlorine, total residual Effluent Gross Season ID:0 C3	E90	4/30/2019	R-05/31/2019	2-10/31/2019
Effluent Violation	001 G 50060 Chlorine, total residual Effluent Gross Season ID:0 C3	E90	5/31/2019	R-05/31/2019	2-10/31/2019
Effluent Violation	001 G 50060 Chlorine, total residual Effluent Gross Season ID:0 C3	E90	9/30/2019	U-09/30/2019	2-10/31/2019
Effluent Violation	001 G 50060 Chlorine, total residual Effluent Gross Season ID:0 C3	E90	12/31/2019		
DMR Non-Receipt Violation	001 G 50060 Chlorine, total residual Effluent Gross Season ID:0 C3	D90	8/31/2020	K-10/16/2020	2-08/19/2021
DMR Non-Receipt Violation	001 G 50060 Chlorine, total residual Effluent Gross Season ID:0 C3	D90	9/30/2020	K-11/15/2020	2-08/19/2021
DMR Non-Receipt Violation	001 G 50060 Chlorine, total residual Effluent Gross Season ID:0 C3	D90	10/31/2020	K-12/16/2020	2-08/19/2021
DMR Non-Receipt Violation	001 G 50060 Chlorine, total residual Effluent Gross Season ID:0 C3	D90	11/30/2020	K-01/15/2021	2-08/19/2021
DMR Non-Receipt Violation	001 G 50060 Chlorine, total residual Effluent Gross Season ID:0 C3	D90	12/31/2020	K-02/15/2021	2-11/05/2021
DMR Non-Receipt Violation	001 G 50060 Chlorine, total residual Effluent Gross Season ID:0 C3	D90	1/31/2021	K-03/18/2021	2-11/05/2021
DMR Non-Receipt Violation	001 G 50060 Chlorine, total residual Effluent Gross Season ID:0 C3	D90	2/28/2021	K-04/15/2021	2-08/19/2021
DMR Non-Receipt Violation	001 G 50060 Chlorine, total residual Effluent Gross Season ID:0 C3	D90	3/31/2021	K-05/16/2021	2-11/05/2021
DMR Non-Receipt Violation	001 G 50060 Chlorine, total residual Effluent Gross Season ID:0 C3	D90	4/30/2021	K-06/15/2021	2-11/05/2021
DMR Non-Receipt Violation	001 G 50060 Chlorine, total residual Effluent Gross Season ID:0 C3	D90	5/31/2021	K-07/16/2021	2-11/05/2021
DMR Non-Receipt Violation	001 G 50060 Chlorine, total residual Effluent Gross Season ID:0 C3	D90	6/30/2021	K-08/15/2021	2-08/19/2021

Table 1. Facility NPDES violations for the past twelve quarters. From EPA ICIS database.



III. Self-Monitoring Program

All effluent parameters required by the facility's NPDES permit are sampled and analyzed on-site. TRC is measured using a HACH DR6000 spectrophotometer. Facility personnel provided a copy of the standard calibration curve from January 2021 that provided the method detection limit (MDL) of the DR6000 for the month of October 2021, which showed an MDL of 0.0238 mg/l for TRC. The facility uses Spectrophotometric Method 4500-Cl G-2011 to analyze TRC samples, which is in accordance with approved methods found in 40 CFR Part 136. The MDL indicates the lowest limit at which a sample can be distinguished from a non-detection with 99% certainty. Values lower than the MDL have a high probability of being indistinguishable from a blank sample.

IV. Effluent and Receiving Water

The EPA inspected the facility's Outfall 001. The outfall was easily accessible by vehicle and walking, and a sign was posted specifying the NPDES ID and outfall number. The Outfall discharge was clear without any visible froth or particulate matter.

Discussion

The main compliance issue at the time of the inspection, as shown in Table 1, was DMR Non-Receipt violations that occurred from August 2020 to June 2021. In this instance, the DMR Non-Receipt violations were caused by late DMR submissions. These late submissions are believed to have been caused by a misunderstanding of how to report analytical results that are below the MDL of the facilities equipment. Initially, the facility was reporting TRC limits as either 0.01mg/l or 0 mg/l, whereas the facility should have reported "NODI=B - Below Detection Limit/No Detection." A review of the facility's originally submitted DMRs found that the initial submittals were timely, but that the facility re-entered the data at the behest of Tennessee Department of Environment and Conservation (TDEC). A review of EPA's database shows that the facility has resubmitted analytical results to show that the TRC readings on the HACH DR600 were below detection limits. ICIS database shows that the facility has returned to compliance as of November 5, 2021.

End of Report