



REGION 1

BOSTON, MA 02109

Date: *Dated as shown on electronic signature*

Subj: Inspection Report
Clean Water Act

From: David Turin, Environmental Scientist
Digitally signed by DAVID
DAVID TURIN TURIN
Date: 2025.01.13 11:08:31
-05'00'

Thru: Elliot Anderson, Inspector

To: File

I. Facility Information

- A. *Facility Name:* North Attleborough WWTF
- B. *Facility Location:* Cedar Rd, North Attleborough, MA 02760
- C. *Facility Contacts:* Gary Farquharson, Chief Operator
Roland Bombardier, Chief Mechanic
- D. *ID No(s):* MA0101036

II. Background Information

- A. *Date(s) of inspection:* November 13, 2024
- B. *Weather Conditions:* Sunny, 50 deg F
- C. *US EPA Representative(s):* David Turin and Elliot Anderson
- D. *State/Local Representative(s):* David Burns and Rick Rondeau, MassDEP
- E. *Federally Enforceable Requirements Covered During the Inspection:*
CWA Sec 402: NPDES Permit MA0101036 and MSGP Sector T
- F. *Previous Enforcement Actions:* N/A

III. Type and Purpose of Inspection

Purpose of the inspection is to evaluate compliance with the CWA NPDES requirements for NPDES Permit No. MA0101036 and the “No Exposure Certificate” filed under MSGP Sector T, permit No. MANOE4042.

IV. Facility Description

Facility is a municipal wastewater treatment facility providing advanced treatment to municipal and industrial wastewater.

V. Inspection

Notice of the inspection was provided to Mr. Farquharson via email on the afternoon of November 12, 2024. Mr. Farquharson had left early, however, and did not see the email until the morning of November 13.

Mr. Anderson and I (the inspection team) arrived at approximately 10 am on November 13.

A. Opening Conference

In addition to Mr. Farquharson and Mr. Bombardier, we were joined by Mark Hollowell, Director of the Department of Public Works for the Town, and the representatives from the Massachusetts Department of Environmental Protection (MassDEP) listed above.

Mr. Anderson and I presented our inspection credentials, and I described the purpose of the inspection, which was to observe current facility conditions and to receive an update regarding the facility’s ongoing efforts to address the large quantity of solids that had accumulate at the facility during periods that the Synagro sludge incinerator in Woonsocket, RI, was offline over the past year or two.

I also noted that the facility has reported a pattern of permit limit violations and indicated that another objective of the inspection was to understand what was causing these violations and to identify measures that the facility is undertaking or can undertake to eliminate this pattern of violations.

Facility representatives described work already conducted in the headworks building and work planned to replace the grit elevators and bar racks in 2025.

The ongoing issues associated with disposing of solids was discussed along with the need to address the high levels of solids still in the system. The facility says that it currently spends 12-13% of its budget on sludge disposal and it remains a challenge to stay on top of the issue with Synagro, which operates contract sludge incinerators, only sending, on average, 3 trucks per day (and 2 on Friday, a half workday at the plant). As part of a long-term solution, the Town is considering the potential of sending sludge to an incinerator in Cranston, RI.

Mr. Hollowell said that the Town was installing a “Muffin Monster” at the Grimaldi pump station (PS), which handles most of the flow to the treatment plant, to help address problems caused by wipes and grease in the collection system. There are 7 other PSs owned and maintained by the Town.

There is also a private PS that is owned and operated by the Emerald Square Mall that serves several commercial properties in addition to the Emerald Square Mall. I indicated that I was aware through past communications with the Town that there have been pump station failures at the Emerald Square Mall PS that have required emergency repairs overseen by the Town. According to Mr. Hollowell, the Town would consider taking over this PS, if it were first rebuilt to Town specifications.

In addition, the inspection team was told about SCADA and PLC upgrades, the addition of sodium hypochlorite tanks for disinfection in 2023 and subsequent the removal of chlorine gas cylinders and the need to make repairs to Primary Tank No. 1. The facility added a shutoff valve to control the flow of spills to the stormwater system for the paved area in the vicinity of the headworks and septage receiving area. The facility is manned 6:45 am until 4 pm (except for Fridays, which are a half-day) and funded with an Enterprise fund. At the time of the inspection, facility is down two operators below optimal staffing levels. While sewer fees are reportedly relatively low compared to adjacent communities, the Town implemented an 11% sewer fee increase in the past year.

I presented a table itemizing reported permit effluent violations over the past 5 years (Attachment 1) and I pointed out the recurrence of total aluminum, total copper, ammonia, total suspended solids (TSS), biological oxygen demand, and flow violations shown on the table. Regarding TSS, the facility noted that these violations were often associated with the high levels of solids that they have been carrying because of the sludge disposal issues described above. For aluminum, facility staff reported that they have transitioned from using alum to assist in solids removal to using a ferric product that doesn't contain aluminum, though they noted that the drinking water treatment plant may use alum in its treatment system. They also noted that they have approximately 9,000 gallons of alum that they need to dispose of. Regarding flow, Mr. Hollowell indicates that the Town spends approximately \$1M per year on its collection system. He says they have primarily focused on infiltration, though they are now beginning to address inflow. He said that the Town is offering a \$750 rebate to homeowners that remove sump pumps and other inflow connections to the sewer system. Mr. Hollowell also said that Plainville, a satellite community to the facility, contributes up to 1.4 MG of flow to the system per day and North Attleborough has initiated a program with Plainville to address its inflow and infiltration issues. Regarding septage, facility representatives stated that the facility takes in 7,000 to 8,000 gallons per month of hauled septage and that the facility only accepts septage from within the Town of North Attleborough. The Town indicated that it has 3 Significant Industrial Users (SIUs) and does not have significant issues with pretreatment. I indicated that the facility should work to identify measures that it can implement to reduce the number of permit violations.

Mr. Hollowell departed the facility before the facility tour.

B. Facility Tour

The facility tour began in the headworks building with Mr. Farquharson pointing out the improvements to the building, included upgraded lighting and new ventilation louvers. We were shown the grit removal system, which is slated for replacement in 2025.

Outside the headworks building, the operators pointed out a valve that cuts off flow from stormwater collection system in the adjacent paved area in the event of spilled material entering the catch basins [see Photo 1]. This system, along with other observations during the inspection document general conformance with the No Exposure Certificate the Town has maintained with EPA under EPA's Multi-Sector General Permit for stormwater.

Primary Tank No. 1 is currently off-line and filled with solids [see Photo 2]. We were told that while it needs repairs, it can run, however the solids loading causes issues moving the flow to the secondary tanks without it first going back through the headworks. Primary Tank No. 2 was running with some floc visible on the surface, which was reportedly related to the higher than optimal levels of solids in the system.

As we walked through the rest of the facility, the operators described challenges at the facility, including a need to work around offline aeration blowers and treatment complications associated with high levels of mixed liquor suspended solids (MLSS) in the aeration tanks. During the summer, the operators described the onerous process of backwashing and cleaning the almost 700 disc filters. It reportedly takes approximately one and a half weeks to complete a cleaning cycle and it needs to be repeated every four weeks to prevent clogging [see Photos 3 and 4].

Leaf litter and other floating natural debris was visible in the chlorine contact chamber and the discharge from the outfall to the Ten Mile River was causing a visible plume, perhaps associated with leaf litter in the chlorine contact chamber.

In the facility laboratory, we met Kayla Hastings, who explained that in-house, the facility evaluates total phosphorus, total residual chlorine (TRC), biological oxygen demand, fecal coliform, pH, total suspended solids, and dissolved oxygen. We reviewed expiration dates on pH calibration solutions and TRC reagents, which were acceptable.

C. Records Review

The record review included a brief examination of logs maintained in the facility lab and the violation report brought to the facility by the EPA inspection team.

D. Closing Conference

During the closing conference, the facility summarized the upgrades and repairs that are planned, including efforts needed to continue to address excess solids in the system, repairs to Primary Tank No. 1, upgrades to the headworks building, and upgrades to the SCADA systems at the pump stations.

In response to a question from MassDEP, the facility said that it has two emergency generators that each support one half of the facility. The generators are tested weekly but not under load because the facility has some old switches that need to be manually reset after under load testing. EPA and MassDEP staff encouraged the facility to conduct at least occasional tests under load as this can reveal problems that might not be apparent during offline testing.

The facility stated that it has an old Comprehensive Wastewater Management Plan but relies on 10-year Capital Improvement Plans to manage upgrades and updates. The current plan was provided to EPA after the inspection.

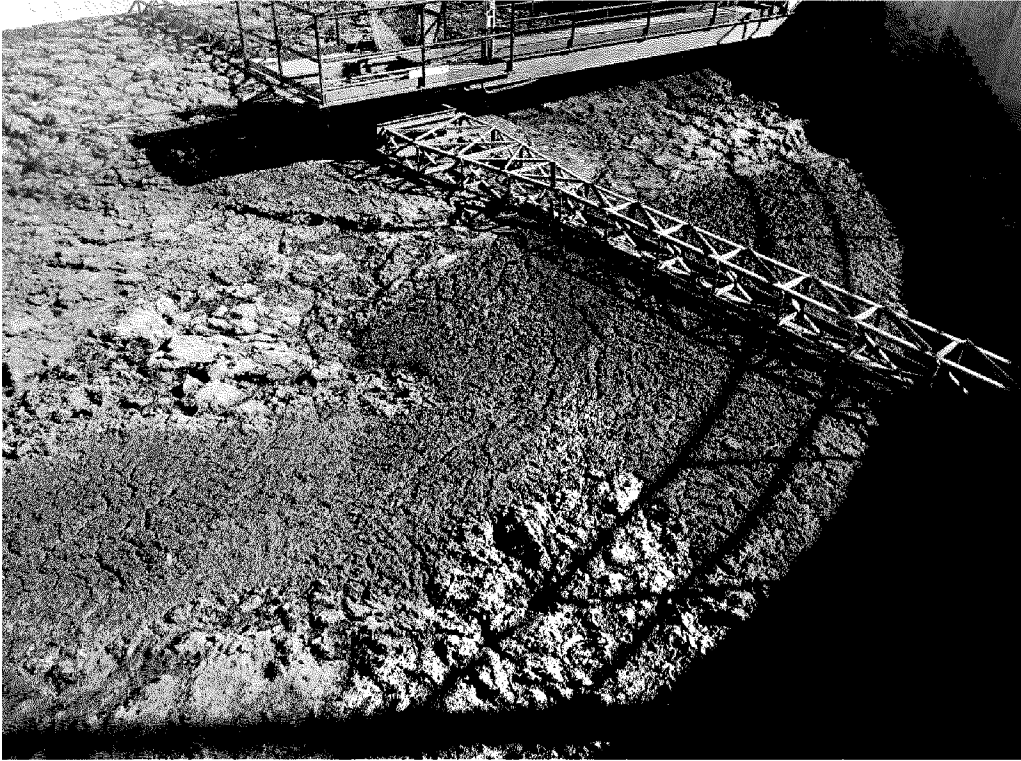
The facility indicated that if they are required to meet stringent total phosphorus limits that they saw in a draft NPDES permit that they reviewed, they would likely need an extended schedule to make the necessary facility modifications. I indicated that if they believe that they will need time to meet new limits beyond what is provided in the NPDES permit, they will likely end up working with me or a counterpart to develop a schedule in an Administrative Order.

We departed at approximately 2 pm.

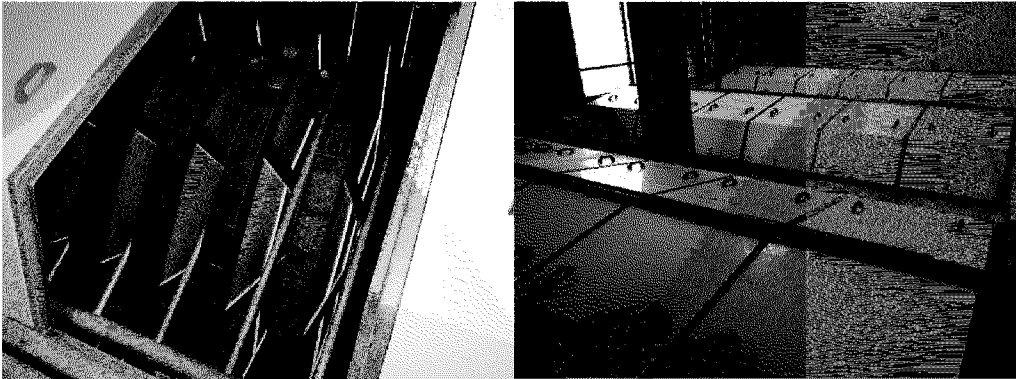
Photo 1 – Stormwater Cutoff Valve



Photo 2 – Primary Tank No. 1



Photos 3 and 4 – Disc Filters



Unless otherwise noted, this report describes conditions at the facility/property as observed by EPA inspector(s), and/or through records provided to and/or information reported to EPA inspector(s) by facility representatives and as understood by the inspector(s). This report may not capture all operations or activities ongoing at the time of the inspection. This report does not make final determinations on potential areas of concern. Nothing in this report affects EPA's authorities under federal statutes and regulations to pursue further investigation or action.