



REGION 1

BOSTON, MA 02109

Date: *Dated as shown on electronic signature(s)*

Subj: Inspection Report
Clean Water Act

From: Newton Tedder, Manager
Water Compliance Section 1

**NEWTON
TEDDER** Digitally signed by
NEWTON TEDDER
Date: 2024.11.19
19:14:18 -05'00'

To: File

I. Facility Information

A. *Facility Name:* Andover Water Treatment Plant

Facility Location: 397 Lowell Street
Andover, MA 01810-4416

B. *Facility Contacts:* Brian Pena
Superintendent
brian.pena@andoverma.us

C. *ID No(s):* NPDES ID: MAG640058 -- FRS ID: 110008993018

II. Background Information

A. *Date(s) of inspection:* 9/25/2024

B. *Weather Conditions:* Sunny 60 degrees

C. *US EPA Representative(s):* Newton Tedder

D. State/Local Representative(s): Catherine Coniaris, MassDEP

E. Federally Enforceable Requirements Covered During the Inspection: Clean Water Act NPDES Permit ID MAG640058

III. Type and Purpose of Inspection

Compliance evaluation inspection. Drinking water facility is in SNC for Chloride violations.

IV. Facility Description

The original facility was put on line in 1973 and then expanded to its present configuration in 1988. The design capacity of the plant is 24 million gallons per day (MGD) however it averages roughly 7 MGD for the year with a max daily summer throughput of around 13 MGD.

The plant draws its water from Haggets Pond, water enters the Ozone building then the chemical addition building and to one of sedimentation basins operating located outdoors in open air. After the sedimentation basins, the water flows to one of 8 activated carbon filters operating in parallel and then to the clear well prior to distribution.

Sediment from the sedimentation basins goes to one of three holding tanks and then gets discharged to the sanitary sewer. Back wash water from the carbon filters is sent to back to Haggets Pond.

V. Inspection

EPA Inspector Newton Tedder arrived at the facility at approximately 8:00 am, met Cathy Conairis from MassDEP in parking lot prior to entering the facility.

A. Opening Conference

Attendees:

Newton Tedder, EPA
Cathy Conairis, MassDEP
Brian Pena, Andover Water Treatment Plant
Karen Martin, Andover Water Treatment Plant
Bridget Morris, Andover Water Treatment Plant

Credentials were presented to all identified above at approximately 8:05 am. Facility personnel provided an overview of plant operations and history. A discussion was had around chloride violations and occasional TSS and pH violations of the NPDES permit. Backwash sampling procedures and discharge point were discussed. The plant backwashes each of the 8 granular activated carbon (GAC) filters approximately every 40 hours of operation on a rotating schedule. Each backwash cycle discharges approximately 130,000 gallons of water. Filters are drawn from the filter gallery inside the building using a flow weighted composite sampling method. Ms. Morris mentioned a sampling SOP that would be provided after the inspection [note this SOP was provided to Inspector Tedder immediately following the inspection via email]. All samples are taken as composite samples from the same sampling location in the filter gallery.

B. Facility Tour

Andover WTP personnel identified above, MA DEP and EPA Inspector Tedder were led through the facility for the inspection at beginning at approximately 9:00 am. The inspection began at the ozone building and chemical addition building where alum and powdered charcoal are added to the water after ozonation. We then walked the length of the sedimentation basin gallery and entered the filtration building. We observed the 8 activated carbon filters operating in parallel, water filtration was actively occurring at this time. The inspection continued to the filter pump location where backwashing can be initiated and then to the top of the filter gallery to observe the sampling location. The inspection then continued outside to observe the manhole on the discharge line that discharges to Haggets Pond, where the discharge pipe extends approximately 150 feet into the pond.

D. Closing Conference

Andover WTP personnel, MA DEP and EPA Inspector Tedder returned to the conference room for the closing conference at approximately 10:00 am. At the closing conference Inspector Tedder discussed the sampling protocol and location. It was noted that chlorine samples should be collected as close to the discharge point as possible and not in the filter gallery room. This sample should be taken as a grab sample not a composite sample, per the permit. It was also noted that the pH sample should follow the same protocol as the chloride sampling procedure. TSS samples should remain as flow weighted composites. Andover WTP personnel indicated it may be possible to increase the pH of the Clear Well to avoid any pH violations in the future.

EPA Inspector Tedder and MA DEP departed at approximately 10:30am.

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.