

CITY OF BEACON WATER AND SEWER DEPARTMENT

Public Notice & Incident Summary Temporary Loss of Chlorine Feed and Residual City of Beacon Water Treatment Plant PWS ID# NY1302760 Incident Date: 4/16/25-4/17/25 (Overnight)

The City of Beacon's drinking water system recently experienced a violation of New York State water quality requirements. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation. We want you to know exactly what happened, what we did, and why your water remained safe during this event. We live here too, and your health and trust matter deeply to us.

What Happened?

On the evening of April 16th, the City's water treatment plant experienced an unexpected equipment failure that resulted in a temporary interruption of chlorine feed into the water system. Chlorine is used as a disinfectant to ensure the safety and microbiological quality of drinking water. For approximately 7 hours, the free chlorine residual in our treated water leaving the plant dropped below the regulatory threshold of 0.2 mg/l, with the lowest levels recorded between a 0.02 - 0.05 mg/l. This qualifies as a Tier 2 violation under the New York State Department of Health regulations and requires us to notify the public and take corrective action.

How Did It Happen?

The incident was the result of two separate failures occurring back-to-back:

- 1. The chlorine delivery system, which operates using a Venturi vacuum setup, failed to switch to a full set of chlorine cylinders due to a partially blocked manifold.
- 2. At the same time, the water plant Supervisory Control and Data Acquisition ("SCADA") system, which is used to remotely monitor and control operations, had a programming error preventing the automated low-chlorine alarm from activating. This alarm should have alerted staff when the residual levels dropped below a 0.5 mg/l

This combination of mechanical and software issues allowed the system to run without adequate disinfectant for a limited time before manual detection and restoration of chlorine levels.

How Did the City Respond to the Incident

- At approximately 4:15AM, a water plant operator remotely accessed the plants SCADA system and observed that the chlorine residual had dropped below acceptable levels
- Recognizing the issue, the operator immediately notified staff and arrived at the treatment plant by 4:30AM to begin corrective actions.
- Chlorine was restored promptly, and an initial high dose was applied to rapidly bring the system back into compliance.
- We contacted our local Department of Health agency and informed them of the lapse of chlorine disinfection after we began corrective actions and initial sampling.
- The chlorine residual returned above a 0.2 mg/l within 1 hour and remained elevated for approximately 7 hours.

- After that, the residual was adjusted back to the plants normal operating level of 1.05 mg/l, where it remained stable.
- To ensure ongoing compliance, the operator collected free chlorine samples directly from the distribution tanks and other points in the distribution system. At no point did the tank residual fall below a 0.46 mg/l, confirming that the disinfectant levels in the broader distribution system remained above required standards.
- To confirm the safety of the water, 20 bacteriological (total coliform) samples were collected from multiple locations throughout the distribution system and storage tanks. All results came back negative for coliform bacteria.

Was The Water Safe to Drink?

Despite the temporary drop in chlorine residual levels and following the incident, water remained safe for drinking. There were no water main breaks, pressure loses, or other events that could have allowed contaminants into our system. Water was still coagulated and filtered before leaving the plant. The incident was mitigated by the fact that our treated water storage system has consistently maintained a free chlorine residual of approximately 1 mg/l over the last 30 years, effectively inhibiting microbial growth and ensuring the integrity of finished water. As a result, testing confirmed our water quality met all applicable regulatory standards and was safe to drink and otherwise use. There is nothing you need to do. You do not need to boil your water or take other corrective actions. This is not an emergency. If it had been, you would have been notified within 24 hours. Tests taken during this same time period did not indicate the presence of bacteria in the water. Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, and parasites which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches. However, if you have specific health concerns, consult your doctor.

Our Commitment to You

We understand how important it is to maintain trust in your water system. While this event was isolated and the risk was minimal, we take any deviation from our standards seriously. We acted quickly, corrected the issue, verified the safety of the water, and are taking long-term steps to prevent reoccurrence. We have taken steps to prevent reoccurrence, including replacing and cleaning the affected chlorine equipment, correcting the SCADA programming error to ensure chlorine alarms will function properly and reviewed protocols to prevent future issues. Any question can be directed to the Water Department at 845-831-3136. You can reach the Dutchess County Department of Health, who oversees our system, at 845-486-3404. We have sent this letter to all existing water accounts, but please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

Una copia de esta carta está disponible en español en https://beaconny.gov