

Key Words: York, NY, potable, THM removal, spray nozzle, stratification, icing problems, GS-12



Photos: The left photo shows the East Tank roof during installation of the GridBee SN-5 Floating Spray Nozzle THM Removal System and the supplementary GridBee GS-12 mixer. The center photo shows the floating spray nozzle in action. The right photo is an image of the GridBee GS-12 submersible mixer.

Owner: York, town of, NY; Contacts: George Worden, Highway Superintendent, Overseer of Water and Sewer operations, Tel: 585-750-7528; Eric Wies, Associate, Tel: 800-274-9000 x1098, E-mail: ewies@clarkpatterson.com.

System Overview: The town of York provides water to nearby dairies, food processors and 3,100 residents via some 37 miles of water mains. York buys their potable water from a neighboring community, which disinfects the water with chlorine before York receives it. York then stores the water in twin cylindrical, welded-steel 0.75 MG ground storage tanks prior to distribution. The twin tanks are referred to as East and West. The East Tank has a daily inflow of approximately 150,000 gpd, with a 175 gpm maximum fill rate.

Reported Problems Before GridBee Installations: Water quality problems included excessive trihalomethane (THM) concentrations, and thermal stratification creating uneven water age issues. During winter months, icing had been a tank management issue. To ensure full EPA compliance and to optimize the community's potable water quality, the town sought a reliable, affordable means for removing THMs. After consulting with their engineering firm, the town decided on a GridBee SN-5 Floating Spray Nozzle THM Removal System for the East Tank. They supplemented that with a GridBee GS-12 mixer to prevent stratification and icing problems.

GridBee Installations: Date: August 2012, installed one GridBee SN-5 Floating Spray Nozzle THM Removal System and one supplementary GridBee GS-12 mixer in the East Tank.

Results: Results since the GridBee installations have been very positive. Certified laboratory tests have documented a 62% reduction in total THMs in the East Tank, a reduction verified at Medora Corporation's own testing facility. The Superintendent of Water and Sewer Operations remarked that "I'm very pleased with these THM results! SolarBee engineers can design the right THM removal system for you, too." Furthermore, there has not been any evidence of either thermal stratification or icing issues in the East Tank. As a result, the town of York is considering a second GridBee THM removal system for the West Tank in 2013.