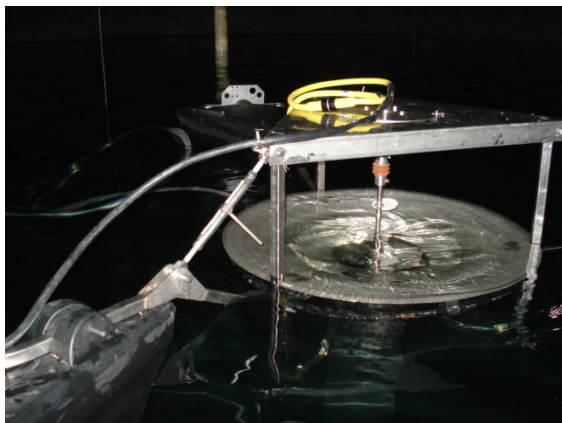


Key words: potable water, stratification, nitrification, short-circuiting, chloramine



Photos: First photo shows the SolarBee in the tank; second photo shows the crew and Department Staff on top of the tank during installation.

System Overview and Reservoir Data: The tank is an above ground steel tank, 0.6 million gallons (MG), 30 ft high. The Town converted to chloramine in February 2005.

Reported Problem Before SolarBee Installation: Tests prior to installation of the SolarBee indicated that water temperatures differences from the top to the bottom of the tank varied from 2 - 5° C. This stratification creates unequal water age in the tanks and promotes undesirable nitrification in chloraminated systems. Therefore, objectives were to thoroughly mix the water in the tank to prevent stratification, short-circuiting and stagnant water conditions in order to control any potential nitrification events.

SolarBee Installation: Date: August 2006, one (1) SB1250v12-PW was installed to mix the water in this tank that historically has had older water age than other tanks in their system.

Results: Testing by the Town concluded that the SolarBee is effectively mixing the bulk water inside their tank. Vertical temperature measurements taken in the fall of 2006 varied only from 15.0°C to 15.5°C with SolarBee mixing. Operator is very pleased with the proven mixing abilities of the SolarBee and more consistent chlorine residuals, which has made their conversion to chloramine much easier.

Last updated: 4-10-07