

THM Removal In Potable Water Storage Tanks

City tests various trihalomethane removal systems to ensure full EPA compliance.

Topics: trihalomethane, THM, TTHM, spray aeration, potable water tanks, GridBee® SN Series THM Removal System



Location & Contact Information:

Further information may be available upon request. Please contact Medora Corporation by phone at 866-437-8076 or by e-mail, info@medoraco.com

Project Overview: This location had a tank battery of four similar 1.5 MG bolted steel tanks installed serving as temporary storage during the planning & construction of two 6 MG pre-stressed concrete tanks. Once the first concrete tank is finished, the steel tanks were taken down and the second 6 MG pre-stressed concrete tank was put in place.

Disinfectant Type: Chlorine

Tank / Reservoir Build Information:

Name: Temporary Tank #1
Type: Bolted steel
Volume: 1.5 million gallons

Pre-Deployment Conditions: The City had been researching different solutions to reduce the total trihalomethanes (TTHMs) in their potable water storage reservoirs to ensure full EPA compliance and to optimize the community's potable water source.

Project Objective: Test and evaluate trihalomethane removal capabilities of Medora equipment.

Solution: One (1) GridBee® SN Series Floating Spray Nozzle THM Removal System, (April 2013)

Results: The tank was taken offline (i.e. no new water was allowed to enter the tank). During this phase of the test, the GridBee® SN Series THM Removal System was able to achieve THM reduction over 70%.

The tank was then placed back online at which point the GridBee® SN Series THM Removal System continuously removed over 40% of THMs (more closely aligned with design parameters).

The GridBee® SN Series THM Removal System also proved to be more cost effective than other designs tested.

The Customer has done more testing with batching versus high flow scenarios to determine the most efficient THM removal method for their needs. The Customer is very satisfied with the results and have presented their findings at regional conferences.

Update (December 2013): The equipment in Tank #1 was removed and re-deployed in the new BSR #1 6MG pre-stressed concrete tank.

Update (May 2015): A new GridBee® SN Series THM Removal System was purchased and deployed in the new BSR #2 6MG pre-stressed concrete tank.