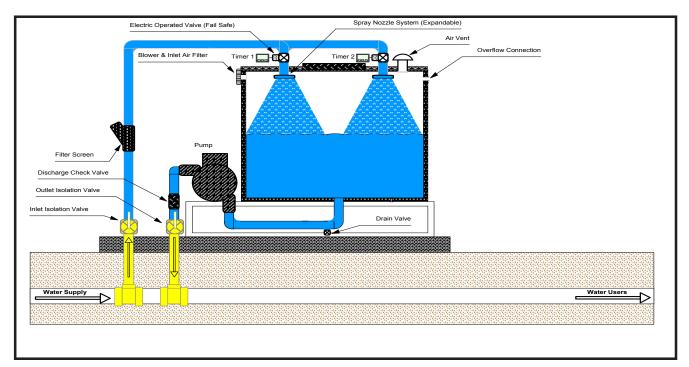


THM Skid Systems

The EPA Stage 2 Disinfectants and Disinfection Byproducts rule with locational maximums for TTHM (80 ug/l) has resulted in compliance pressure for many cities. Medora Corporation has developed an in-line skid system to allow cities to remove THMs in a specific neighborhood or remote end-of-line region.



In-line Skid THM Removal System

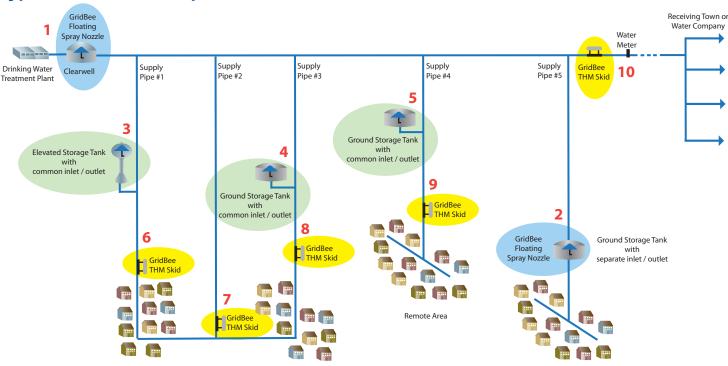
Solutions, Features, and Benefits

- Typical city solution: For THM exceedances in dead-end areas or other small sections of the city.
 - For example, a city may have a water treatment plant output of 10 MGD, with THM exceedances in a 10-block area that consumes 0.2 MGD. To address that problem currently, the city may have to purchase an expensive clearwell THM removal system sized for 10 MGD, because the clearwell may be the only tank that the 0.2 MGD positively flows through on the way to the problem area. Instead, a small skid-mounted THM stripping system could be connected to the mainline(s) feeding that area, and solve the THM problem. The city could connect the skid to the mainline easily, and then put a small enclosure over the skid to match the landscape. If the problem area of town is on a "loop", with water feeding from two directions, then two skid systems would be needed, one for each side of the loop.
- Typical wholesaler solution: For a wholesaler who is handing off water to a retailer. If there are THMs in the
 water but there is no water tank at the point of handoff, there is no place to install a standard THM removal
 system. In this case a skid-mounted THM removal system could be placed on the mainline to reduce THMs
 at the point of transfer.
- Volatile contaminants solution: The In-line Skid THM Removal System is also a good solution for stripping
 other volatile contaminants from drinking water. For instance, some cities have wells that produce methane
 or sulfide, and that can be stripped out at the well before the water is introduced into the mainline.

Solutions, Features, and Benefits (Continued)

- The In-line Skid THM removal System is designed to never impede flow in either direction through the mainline pipe. This is important for fire protection or in the event of a power outage. There are no checkvalves that can malfunction and affect flow through the mainline.
- In-line Skid THM Removal Systems can be customized for virtually any gallons per minute, gallons per day, or THM removal requirement.
- In-line Skid THM Removal Systems are easy to service by city personnel.

Typical Placement Map



- **Items 1 and 2:** In-tank Floating Spray Nozzle THM Removal Systems are available to provide treatment of the entire plant output at the clear-well, or in storage tanks. They are particularly effective in storage tanks with a separate inlet and outlet, where all of the flow goes through the tank.
- Items 3, 4, and 5: An In-tank Floating Spray Nozzle System will work well, but it only treats the water that comes into the tank.
- Items 6, 7, 8, 9, and 10: An In-line Skid THM Removal Systems will allow a city to remove THMs in a specific neighborhood or remote end-of-line region. The city's engineer can design the pad, piping retrofit and building to house the skid system. An in-line skid system may be the best solution when the distribution flow can bypass the tank in the system and go directly on to the user.

