

PROBLEMSOLVER

Utility Finds Answer in Tablet Chlorination

By Scott Betcher

Colorado water and sanitation district chooses Accu-Tab tablet chlorination for a supplemental system to locate at well sites

Located in Colorado Springs, Colo., Donala Water and Sanitation District serves a population of 5,825 with 13 wells, 25 miles of pipeline and two water plants that chlorinate and remove iron and manganese from the water. The average treatment rate is 600,000 gal per day (gpd), peaking at around 3.2 million gal in the summer months.



Problem

“After our vulnerability assessment plan was finished in 2003, we found that we would need some more of our wells equipped with chlorination if for some reason the water plants were put out of service for any length of time,” said Robert Hull, superintendent of operations for Donala.

“We use gas chlorination at the plants, but that requires safety training, safety equipment and a building designed for the use and storage of chlorine gas. That made this chlorination method at the well site economically unfeasible, especially for something that would not be used much,” Hull said.

Robert Hull, superintendent of operations for Donala, inspects the system prior to start-up at standby well No. 8. The Accu-Tab system is enclosed in a custom-made cabinet, allowing it to be fully operational in a matter of minutes. The well runs on an as-needed basis as a back-up to the main plant.

Inset: Power Pro system installed at a remote standby well site adjacent to a residential neighborhood.

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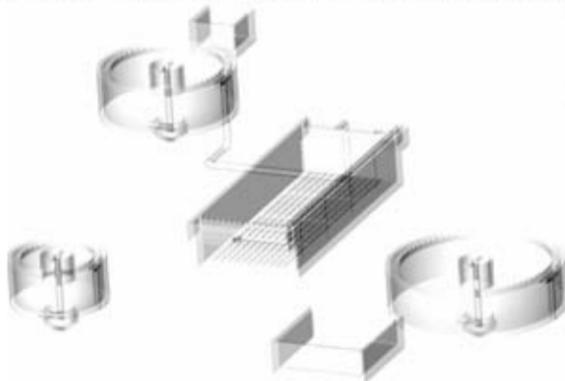
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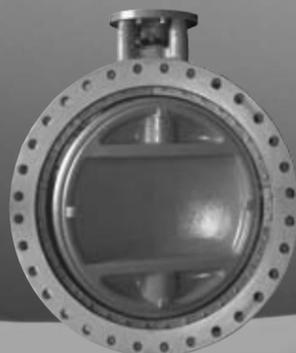
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Donala also investigated sodium hypochlorite, but that required an onsite building for storage, a way to handle the drums and, if the unit was shut down for a long period of time, removal of the chemical followed by cleaning of the tanks and pumps. Granular chlorine also wasn't a contender because a past experience at one of Donala's wells resulted in a periodic gas off of chlorine when mixing and constant cleaning of the pumps.



Donala Water uses Accu-Tab tablets to provide a safer method to transport handle and store chemicals.

Solution

Searching for a supplemental chlorination system to locate at well sites, the Donala Water and Sanitation District chose the Accu-Tab tablet chlorination system from PPG Industries because of its small footprint, fast start-up and shutdown times and proven chlorine delivery. The district had previous experience with an earlier generation of a PPG tablet chlorination system, having installed units in 1999 and 2000 on two wells that were used

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“The first unit isn’t used much, but it works great when we need it,” Hull said. “The second one was installed on a newly drilled well that feeds directly into our storage tanks. It’s been used every summer and has given us little or no problems. This experience led us to select the Accu-Tab system for the additional high-production well locations.”

Results

According to Hull, “The systems can’t be beat for how we’re using them. We can have one charged and running in less than an hour, and we can drain it, pull out and store the tablets and have the unit on standby in the same amount of time.”

Because the system is a small, self-contained package, it doesn’t require any special building and can be installed in a small fiberglass or aluminum enclosure. The tablets can be stored on site without weather damage and carried to the site in a pickup truck.

According to Hull, the systems are basically maintenance free and deliver residuals of 0.6 to 0.7 ppm.

The NSF-listed Accu-Tab system combines a simple, patented chlorinator with slow-release calcium hypochlorite tablets to provide consistent and controllable chlorine dosages regardless of size and demand.

Accu-Tab PowerPro systems include all components necessary for a turnkey chlorination system and are easily adaptable for automatic control and multi-point injection. The compact system does not require a separate entry room like gas does, and takes up a fraction of the space required for similar bleach or onsite chlorine generation systems. In most cases, maintenance is reduced to cleaning the chlorinator just once a year.

The 3-in. Accu-TabSI (scale inhibitor) calcium hypochlorite tablets, also NSF-listed, are specifically formulated to help prevent scale formation inside the chlorination chamber, especially in hard-water areas. Engineered to perform reliably and consistently, the tablets are pressed rather than formed, ensuring their physical integrity and eliminating brittleness and extensive breakage. [WWD](#)

Scott Betcher is market manager for calcium hypochlorite, PPG Industries, Inc. He can be reached at 724/325-5997 or by e-mail at betcher@ppg.com.

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