

New Castle, New Communications, New Century

"It's like having another employee that works seven days a week!" That's Jack Castle's reaction when asked how he likes his new telemetry system.

In 2003, New Castle, Colorado, launched a new century of automation by replacing their old water distribution radio telemetry system. The water treatment plant, three water tanks, and two pump stations are now part of a complete communication package.

Reliability and consistency were the main criteria when New Castle selected their Motorola telemetry system. Castle noted, "Our previous telemetry system was non-functional. ***I used to have to climb tanks three times a day, every day of the week!*** I wanted a telemetry system that would eliminate the wear and tear and safety hazards of physically checking my system every day!" The water district also required a robust radio communication medium that would perform well in all types of weather and terrain.

To meet these criteria, a UHF licensed frequency was selected as the best communication medium for the telemetry. "There are many advantages to a UHF licensed frequency. The 450MHz band provides a wave that is about 4 feet wide and propagates well in the rugged topography surrounding New Castle," says Kurt Evezich, President of *Timber Line Electric and Control Corp.*, the system integrators. "With the advent of Homeland Security, a licensed frequency was the logical choice. It helps to reduce the possibility of interference, and provides a more stable environment than the unlicensed bands."

Castle has discovered another advantage of a reliable, licensed system: a consistent data stream! He is now better able to track the number of starts on each booster pump and the total run-time hours, helping to schedule maintenance. More importantly, both system information and alarms are now available to the plant operators and other maintenance people in town. ***This has allowed Castle to schedule his first vacation in 5 years!*** He is looking forward to attending a conference in beautiful San Diego!

With the remote site telemetry running dependably, New Castle has plans to integrate the controls of their U.S. Filters and their wastewater treatment plant into the computerized central display. This will provide the operators and maintenance people with an overview of the entire system from raw water to the wastewater!