

Cheyenne Board of Public Utilities in Cheyenne, Wyoming Successfully Moves from Calcium Hypochlorite Tablets to Microclor® On-Site Hypochlorite Generation



The Cheyenne Board of Public Utilities (BOPU) operates the water and wastewater systems for the capital of Wyoming which has a population of more than 63,000. Located in the fast growing Front Range Urban Corridor, BOPU is challenged by growth, periodic water scarcity and aging infrastructure.

During high demand, Cheyenne disinfects approximately 2 million gallons from well fields at an off-site location from the water treatment plant. This off-site location used a calcium hypochlorite disinfection process that required frequent, recurring maintenance. To reduce costs, the BOPU investigated alternative methods for disinfection.

BOPU staff eliminated chlorine gas and bulk commercial bleach (12% concentration) disinfection processes due to safety concerns and determined that an on-site sodium hypochlorite generation system (OSHG) as the best option for reducing maintenance. The BOPU ultimately selected the Microclor® OSHG system manufactured by Process Solutions, Inc. (PSI) as the system that met their needs by generating the disinfectant with only water, salt and electricity. The Microclor® OSHG system also allayed concerns of hydrogen accumulation because it is the only system with vertical electrolytic cells that vent hydrogen passively away from the generation area.



BOPU's 100-Pound Per Day Microclor® OSHG Unit

Wenck Engineering was awarded the contract to design a new building to house the disinfection system. General contractor selection, and construction began in 2014 with commissioning shortly thereafter.

"The PSI OSHG System is very easy to operate and maintain and we get great factory support. The Maintenance Crew spent 60% of their time cleaning screens and unplugging lines with the old system. Now they only spend about 2% of their time with the PSI OSHG system, and that's mostly daily checks"

Lynn Gaer, Plant Supervisor, Sherard Water Treatment Plant, Cheyenne, WY