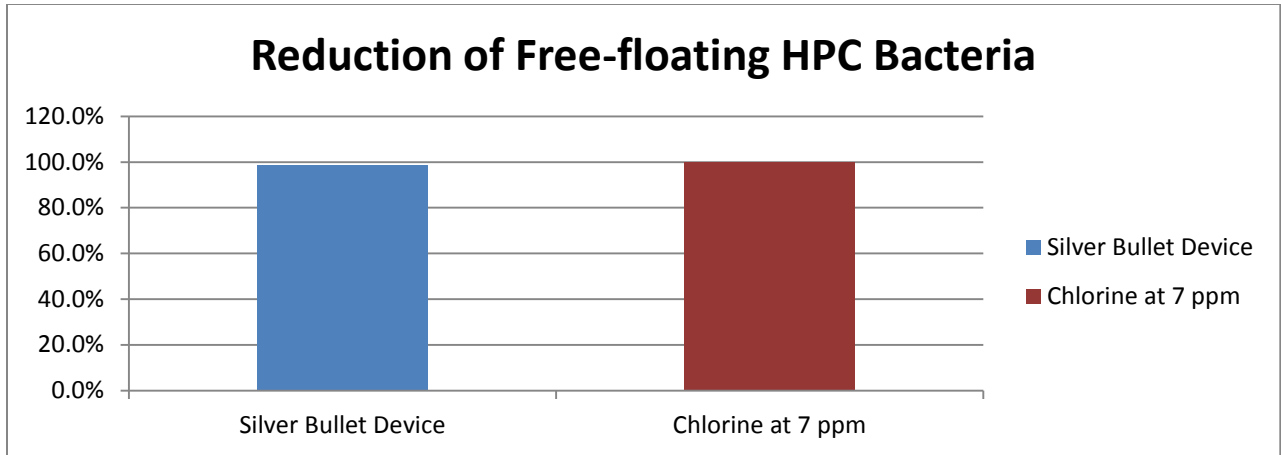


Silver Bullet Standard Operating Levels and Chlorine Shock Comparison



Dr. Radisav D. Vidic and Dr. Janet E. Stout of the University of Pittsburgh performed a controlled test of the Silver Bullet System (SBS) to evaluate the system's efficacy in cooling tower water biological control by reducing heterotrophic plate counts (HPC) of bacteria. A similar study performed by Thomas et al. (1999) evaluated the efficacy of a 7 ppm chlorine shock treatment in cooling towers. Both tests were carried out using a model cooling tower system simulating realistic field conditions.

The University of Pittsburgh and Thomas et al. studies show that both the SBS and the 7 ppm dose of chlorine control HPC bacteria growth in cooling tower bulk water. The average free-floating HPC bacteria concentration was reduced by 98.8% by the SBS and 99.9% by chlorine at 7 ppm. Usual chlorine doses in cooling towers are approximately 2-3 ppm. The SBS used at normal or low levels compares favorably to what would be considered a chlorine shock.