Case Study HandiChem™ System

HandiChem System Helps Meet Corporate Sustainability Initiatives

Problem
A large soft drink bottling plant in the Midwestern U.S. was presented with corporate sustainability initiatives for their 300,000 square foot manufacturing facility, which prompted them to evaluate a range of measures to reduce their facility’s environmental impact. The refrigeration and boiler systems were targeted since they are major consumers of energy and water.

Analysis
The plant’s 1,600 ton ammonia refrigeration system consists of three evaporative condensers and eight compressors. A 550-HP boiler system provides 85 psi process steam. Reliable and efficient operation of these systems is required for plant production.

Chem-Aqua’s liquid water treatment program was providing good results, but chemical storage, handling, and disposal presented sustainability concerns. The HandiChem Solid Water Treatment System was introduced to address this.

With the HandiChem System, chemicals are provided as solid concentrates in either block form or one-gallon recyclable plastic bottles, rather than liquid in drums. HandiPak® Solid Concentrates are dissolved as needed into a small plastic reservoir using a HandiFeed™ Mixing Board. The feed solution is then pumped into the system being treated.

Solution
The HandiChem System was installed and provided the proven results of the previous high-performance liquid program. Furthermore, the HandiChem System enabled the facility to meet its corporate sustainability initiatives by

- Reducing splash and spill concerns
- Reducing fuel and greenhouse gas emissions associated with product delivery
- Eliminating drum handling, storage, and disposal
- Reducing packaging requirements and landfill waste

The HandiChem Solid Water Treatment System proved to be an innovative technology that provided environmentally responsible water treatment and helped achieve corporate sustainability initiatives.