



# Actavis (Teva) Pharmaceutical - Elizabeth, NJ

## Actavis Process Chiller Replacement

### Background

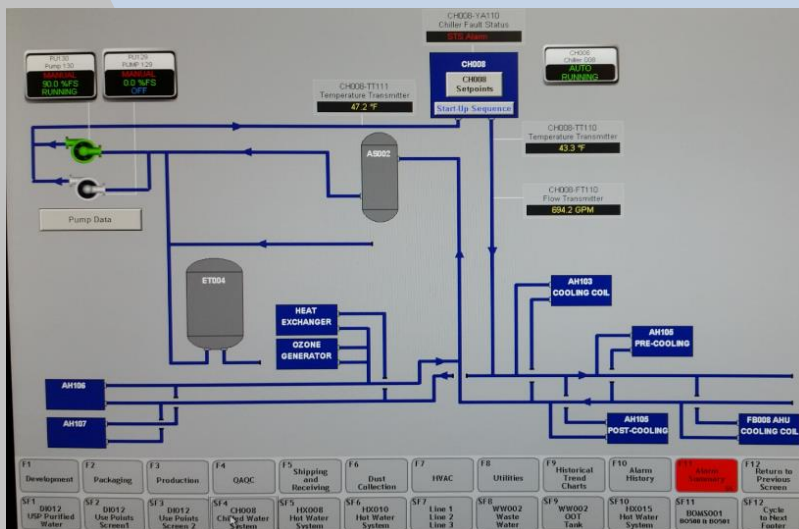
Three reciprocating chillers in one of the chiller plants at Actavis in Elizabeth NJ were beyond their useful life. This project analyzed replacement options for the reciprocating chillers, as well as interconnecting 3 of their chiller plants. In addition, the scope included replacing select 3-way chilled water control valves with 2-way control valves and installing VFDs on (2) chilled water pump sets.

### Project Scope

Smith Engineering's scope of work included Mechanical, Structural, Electrical, and controls Designs for two new 300 ton air-cooled chillers, associated dunnage modification, replacement of 3-way valves with 2-way valves, and the addition of VFDs on the existing associated chilled water pumps to allow the systems to function as a variable primary system. The 3 existing chiller plants were also interconnected to operate as a virtual central plant thereby increasing efficiency and redundancy.

### Services

- Energy Audit of CHW system
- Hydraulic Modelling for Interconnection
- Recommendations for decreased energy consumption
- Mechanical, Electrical, Structural and Control Design
- Construction Management, Start up and Commissioning



## Value Added

### Energy Savings:

- Reduce Energy Consumption
  - 1,335,407 kWh annual Savings
  - \$168,194 annual energy & maintenance cost savings
  - Expected \$350,000 Rebate

### Improved Operation:

- Virtual Central Chilled Water System
  - VFD on chilled water pumps
  - Increased Reliability
  - Increased Redundancy