

Project Report

Philadelphia Wachovia Center

BAC Series 1500 Cooling Towers and ICE CHILLER® Thermal Storage Coils are part of the Energy-Saving HVAC System

Facility Owner/Operator: Comcast-Spectacor

Architect: Ellerbe Becket, Kansas City, MO

Consulting Engineer: Flack & Kurtz, New York, NY

Mechanical Contractor: Herman Goldner Co., Philadelphia, PA



The Wachovia Center in Philadelphia, PA is designed with extensive building envelope features and HVAC energy-efficiency measures that are predicted to save over \$250,00 in annual energy usage costs and demand charges. The state-of-the-art facility can seat up to 21,000 people at concerts and sports events such as basketball, hockey and lacrosse games. Baltimore Aircoil Company Series 1500 Cooling Towers and ICE CHILLER[®] Thermal Storage Coils are integral to the energy-saving HVAC system at the facility.

The seven-cell BAC Series 1500 Cooling Towers provide the cooling water for the chiller system which cools three areas of the building independently on a zoned basis. Series 1500 Cooling Towers were chosen because their light weight, compact size and single-side air entry permitted locating them in a narrow, roof-top enclosure on the front of the building. The towers are hidden behind the architectural screen wall in the photo above.

Eight (8) BAC ICE CHILLER[®] Thermal Storage Coils are located in a concrete vault behind the arena, to handle the building's cyclical cooling demands. The internal melt thermal storage system cools a solution of ethylene glycol to supplement the chillers during peak loads. The coils can build almost 800,000 lbs. of ice in an eight hour period.

