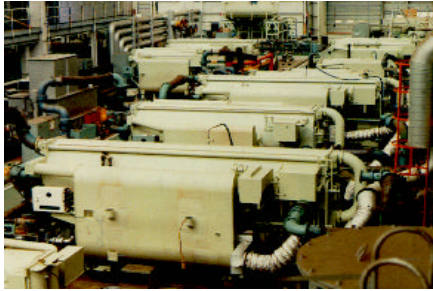


Case Study: Absorption Chillers – Nestle USA
Location: Allentown, PA

Absorption Chillers Use Natural Gas for Economy and Reliability



One of the prime measures of food processing quality is total consistency. This is especially critical during storage and warehousing of perishable food products.

Nestle USA set tight temperature parameters for its distribution center in Allentown, Pa. Products in the 1,000,000 square-foot warehouse were to be stored within a temperature range of 68°F to 74° F at 50 percent relative humidity. Moreover, cooling equipment for installation at the center must provide low operating cost benefits, high

reliability and meet Nestlé's demanding environmental standards.

"All three are critical to Nestle," says Julianne Gadsby of UGI, Reading, Pa., "especially the environmental standards. So management was pleased because they could save money and adhere to their environmental commitment with natural gas chillers."

Two York Paraflow™ absorption chillers were selected for the Allentown facility. Absorption cooling systems rely on a chemical cycle to condense and evaporate the refrigerant that provides the chilling. The process is driven by several heat sources; direct firing, generally by natural gas, offers maximum energy savings.

Economically, the choice of natural gas chillers was an easy one. Preliminary calculations employing a business development rate, offered to Nestle by UGI's Gas Division, indicated that operating costs with natural gas chillers would be half that of electric units with similar capacity. System reliability has been confirmed with no major difficulty since fall 1994, when the Allentown center opened.

Finally, the environmental aspect easily meets Nestlé's commitment to conserving energy and protecting the environment. Avoiding the potential environmental hazards of CFCs and HCFCs, the York units employ water and a salt solution for an environmentally safe system.