

## Central Plant

### Rice University South Central Plant Houston, Texas

As Rice is beginning its second century of growth, a second central plant will be added to serve a new expansion on the south side of the campus. In the next three years, nearly one million square feet of new buildings will be added, with an additional 1.5 million square feet after 2010. AHP, in association, continues to serve Rice University with planning and design services for this plant.

The South Plant will initially have 7,500 tons cooling, 64,000 pounds per hour steam, 40 MVA new electric service and six MVA of emergency power. The plant is planned for future expansion to 15,000 tons, 120,000 pounds per hour steam and 70 MVA electric service.

A cogeneration study was performed and indicates significant operating benefits and energy cost reductions. Cogeneration, if implemented will add 4.3 MW of electrical capacity and increase construction cost by \$6,000,000. Cogeneration will save \$25,000,000 in net present value operating cost over 20 years.

Utility tunnels will contain chilled water supply and return piping, steam and condensate piping, compressed air and telecommunications. These systems will interconnect with existing main campus systems for greater reliability and improved hydraulics.

#### Completion Date

May 2008

#### Estimated Construction Cost

\$40,000,000

#### Project Delivery Method

Design-Build, Construction Manager at Risk

