Central Thermal Energy Plant

Texas A&M University
College Station, Texas

AHP personnel have provided engineering solutions for Texas A&M University at their central plant on the College Station campus for several recent projects.

The most recent project consists of the replacement of a 100,000 lb/hr steam boiler and all of its auxiliaries with a 200,000 lb/hr, 600 psig, 700oF steam boiler, and all of its auxiliaries (feedwater pumps, deaerator, waste heat economizer, VFD driven force draft fan, etc.). A new continuous emissions monitoring system (CEMS) and a new 8" gas supply line were provided. The existing 200 feet tall concrete, historical stack was refurbished.

Other projects include:

- Replacement of four 1500-ton absorption chillers with two new 1,500-ton absorption and two 1,500-ton electric centrifugal chillers.
- Addition of a 4mW back pressure steam turbine generator.
- A heat balance of this complex central plant which included an existing gas turbine cogeneration system, fired boilers, two extraction steam turbine generators, absorption chillers, centrifugal chillers, and various steam driven auxiliary equipment. The model allowed simulation of various changes to the plant design and operating strategy to optimize equipment sizing and purchased utilities.

Completion Date
January 2003 (Boiler)

Construction Cost
$4,656,000 (Boiler)

Project Delivery Method
Design-Bid-Build, Pre-purchased Equipment

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