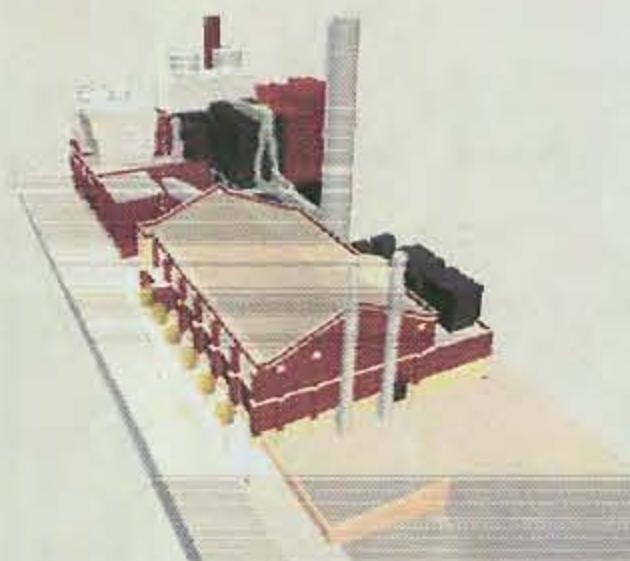


Energizing Mizzou ! Power Plant



History

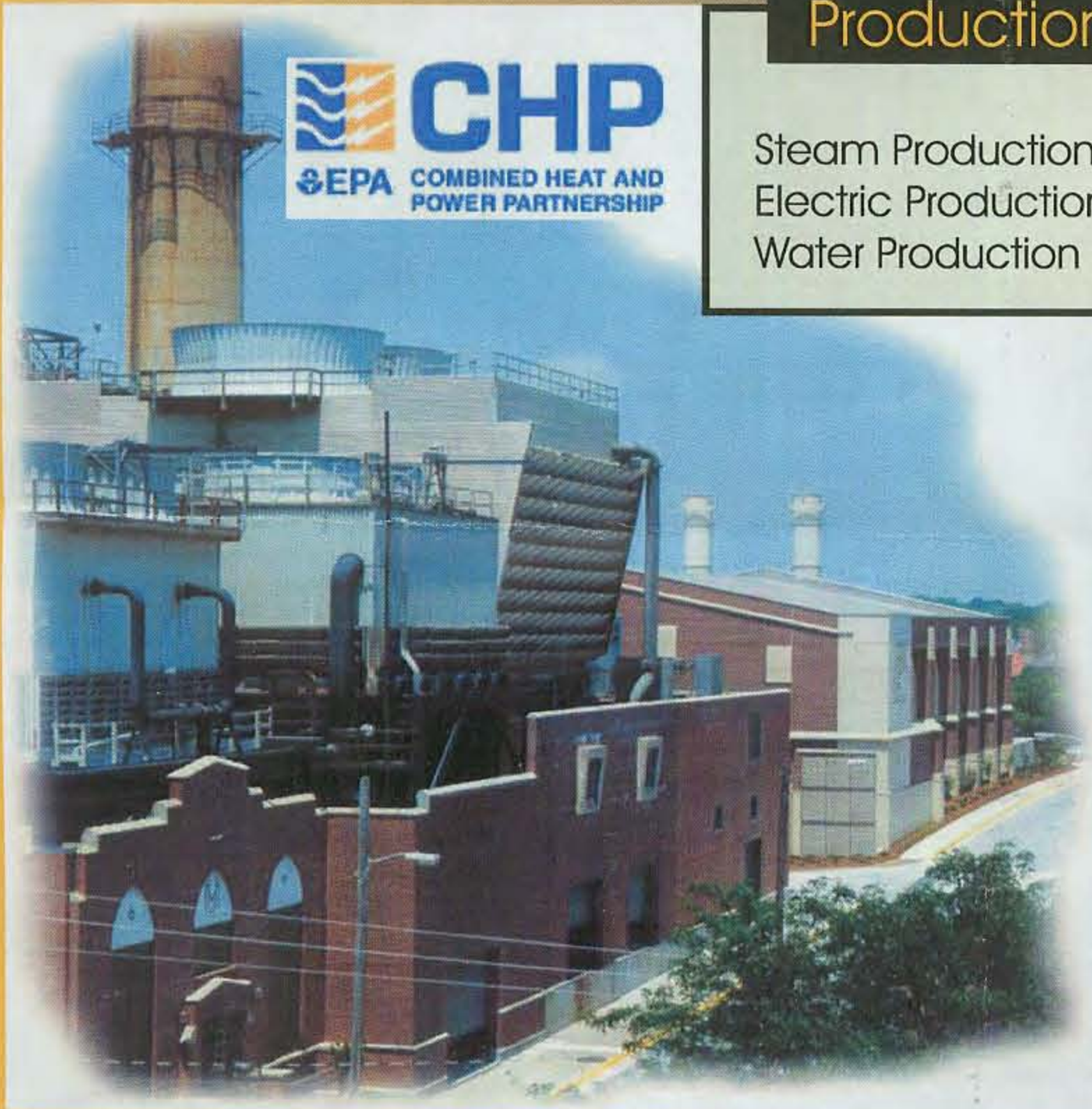
The MU Power Plant has been providing steam and electricity from its current location since 1923. The plant was originally equipped with four 125,000 lb/hr coal fired boilers, a 300 kW steam turbine, and a 600 kW steam turbine. The plant has utilized co-generation for 80 years while burning coal as the primary fuel.



Today the plant is equipped with six boilers (five coal and one natural gas/oil), two gas turbine generators with heat recovery boilers, four steam turbine generators, and five deep wells providing steam, electricity, and water to the MU campus.

Production Capabilities

Steam Production Capacity - 1,125,000 lb/hr
Electric Production Capacity - 66.5 MW
Water Production Capacity - 5.5 MGD



Peak Demands

Total Steam - 625,000 lb/hr
Extraction Steam - 340,000 lb/hr
Water - 4.4 million gallons/day
Electric - 43 MW

FY 2004 Production

Total Boiler Steam - 2,513,544 klb
Total Extraction Steam - 1,466,807 klb
Total Electricity Produced - 204,518 MWH

Fuel and Power

The plant burns stoker grade coal from Illinois mines. The coal is transported by truck to the plant where it is weighed and sampled. Tire Derived Fuel (TDF) is blended with the coal at the plant. Two 100 ton/hr coal conveying systems move coal to the plant's boilers. Ash is collected by two vacuum conveying systems and stored in ash silos. The ash is sent to a nearby facility that uses it to produce artificial soil for land reclamation.

Natural Gas is purchased from gas marketers off the Panhandle Eastern Pipeline using innovative contracts and market hedging strategies. Wholesale interruptible electricity is purchased from marketers or regional utility companies when availability and market prices provide cost saving opportunities.



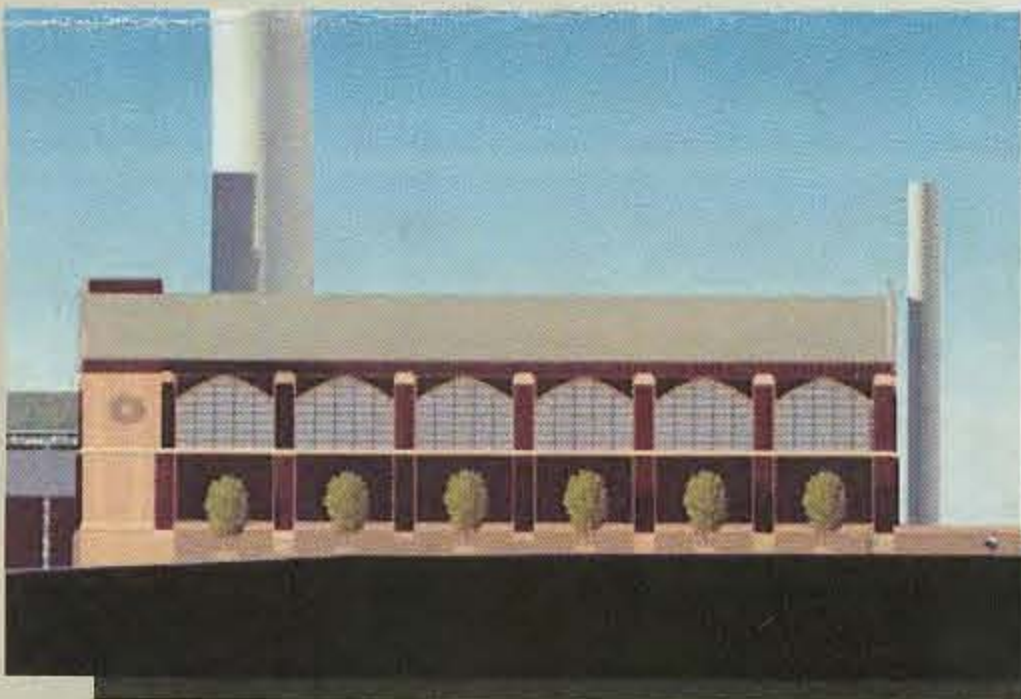
2002 Capacity Addition

To meet the growing utility needs of MU, Energy Management recently completed a combined cycle capacity addition. This increased the plant electrical generating capacity by 50% and steam generating capacity by 35%, while significantly increasing the overall efficiency of the power plant. The project also installed 2,400 tons of chilled water capacity to supply chilled water to cool campus buildings. Operation of the combined cycle plant commenced in April, 2002. The addition includes the following equipment:

- Two 12.7 MW Solar Titan 130 Combustion Turbine Generators
- Two 125,000 lb/hr ERI Heat Recovery Steam Generators with Auxiliary Firing
- One 1200 Ton Two Stage Steam Absorption Chiller and Cooling Tower
- One 1200 Ton Electric Centrifugal Chiller and Cooling Tower
- New and Re-configured 13.8 kV Switching Station
- Two 500 cfm Air Compressors and Air Dryers
- Two 400 Hp Natural Gas Compressors
- One 2000 kW Diesel Generator
- New DC/UPS System
- New 340ft Utility Tunnel Extension



Building Additions



Gas Turbine / Chiller Building - The building is a 37,000 sq ft. steel frame structure with brick exterior and metal roof with room for a future gas turbine, HSRG, generator, and chiller. A sky bridge connects the new building to the existing plant for piping, wiring, and personnel access.

Gas Compressor Building - The building, a 3,000 sq. ft. masonry structure, accommodates the two 400 Hp natural gas compressors while leaving room for a third. This structure is specifically designed for exterior sound control.

