DRILLING SERVICES

IATAN POWER PLANT
WESTON, MISSOURI

Owner:	*Kansas City Power & Light* *David Tyrrell* *(816) 556-2200, ext. 4367*
Client:	*Burns & McDonnell* *Mike Butler, P.E.* *(816) 822-3492*
Project Size:	*$1.5 Billion*
Project Manager:	*Casey Jones, P.E.*
Project Engineer:	*Sheryl Gallagher. P.E.*
Years:	*2006 - present*

Project Description

Kansas City Power & Light (KCP&L) is planning to construct an additional coal-fired unit adjacent to the existing Iatan power plant outside the city limits of Weston, Missouri. Geotechnology Inc. provided Burns & McDonnell with geotechnical drilling, sampling, and geophysical services. The plant will include administrative, maintenance, and chemical feed buildings, a fly ash silo, a sewage and water treatment building, coal handling equipment/buildings, inland barge slip facility, water and fuel oil tanks, roads, a boiler, a steam-powered turbine, baghouse, chimney stack, cooling towers, as well as SCR retrofits to the existing Iatan power plant.

Geotechnology, Inc. performed sampling in 46 borings and 25 cone penetrometer tests (CPT) for a total of 4,370 lineal feet of soil borings and 135 lineal feet of rock coring. Geotechnology worked to provide quality services with sensitivity, as a portion of the site was nearly surrounded by wetlands and made borehole accessibility challenging. Geotechnology then conducted laboratory testing on the samples, including index testing; standard Proctors and two California bearing ratio tests on bulk samples; unconfined compressive strength tests with stress vs. strain plots on recovered rock core; and a corrosivity series of tests, including pH, sulfides, sulfate, chloride, redox, and resistivity on select samples.

Geotechnology also provided geophysical services, including three crosshole seismic tests conducted in general accordance with the ASTM D 4428 standard, soil resistivity field testing using the Werner 4-pin method, and borehole geophysical testing.

Geotechnology worked closely with the plant personnel for utility clearance. Geotechnology utilized multiple teams and worked weekends to provide timely results and meet schedule deadlines.