The Rocky Mountain Project refers to a pumped-storage generating plant. Water is stored in a 220 acre reservoir atop "The Rocky Mountain" in Georgia. During peak demands, water is released from the upper reservoir through a 570 ft shaft and a 1,935 ft tunnel via turbines into a 600 acre main lower reservoir. At night the water is pumped back to the upper reservoir using excess power generated at coal and nuclear power plants. Two auxiliary reservoirs covering 605 acres supply make up water.

The Judy Company, Inc. was awarded a $3.1 million subcontract from Power Plant Constructors, a Morrison Knudson-Clements joint venture. The scope of the work included drilling and grouting the foundations of seven dams, including the upper reservoir with a length of 12,788 ft. Also included in the contract were rock anchors, exploratory coring and drainage holes. The work took nearly three years to complete.

SOLUTION

Access to many of the work areas was difficult. The main dam had a sixty foot nearly vertical abutment. An 8'x6' gallery in the main dam included a grout curtain and drainage holes. A total 9,000' of drain holes were drilled underground from a drainage adit located above the penstocks. Piezometers were also drilled on-site.

Special grouting equipment was designed and built for the project because of the large volumes of cement anticipated. Because the project covered more than 5,000 acres, mobility was an important ingredient of successful completion.