

## ARKANSAS DAM NO. 2

Dumas, AR



- **Owner:**  
Arkansas Electric Cooperative, Little Rock, AR
- **Technique(s) Utilized:**  
Diaphragm Wall, Cutoff Wall, Anchors, Concrete, Mass Excavation

**T**his Arkansas Electric Cooperative Corp's 108 MW Dam No. 2 Hydropower Project involved the innovative use of slurry wall construction in both structural and non-structural applications. The works comprised the construction of the seepage cut-off wall; the structural slurry walls used for the walls of the intake channel and tailrace and as temporary retaining structures for the power house excavation; construction and installation of a deadman anchor system and ground anchor system to support the walls; dewatering and excavation.

The project involved 104, 9-foot-long by 13-foot-long T-shaped structural slurry wall panels, which included some of the heaviest reinforcing cages ever lifted into place as a single unit, that were used along with 9-foot-long straight structural slurry wall panels to construct the upstream and downstream channel training walls. This project is the first known use of structural slurry walls as channel training walls at a hydropower project in the United States. The project also included 8, 20-foot-long and 8, 9-foot-long straight structural slurry wall panels, and 4, 13-foot-long L-shaped structural slurry wall panels used to enable powerhouse construction. There were also 584,600 square feet of nonstructural slurry walls constructed to form seepage cutoff walls around the excavation area and below the powerhouse.