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DAMS · IN SITU STRESS MEASUREMENTS

Keowee Dam, Oconee Nuclear Station, Seneca, South Carolina

In 2009, DA Smith drilled and made overcore stress measurements for HDR at the Duke Energy Keowee Dam spillway at the Oconee Nuclear Station.

CLIENT	LOCATION	YEAR	WORK
Duke Energy	**Oconee Nuclear Station, Seneca, South Carolina**	**2009**	**Dams, In Situ Stress Measurements**

In 2009, DA Smith* completed drilling and overcore stress measurements under contract to HDR at the Duke Energy Keowee Dam Spillway located at the Oconee Nuclear Station near Seneca, South Carolina. The purpose of the program was to drill observation core holes and measure stress in the concrete ogee of the Gates 1 and 4 spillway bays. Tasks included:

- Six NX wireline (NXWL) observation and concrete sampling core holes were drilled: two angle core holes into the west end wall from a work deck in the Gate 1 spillway bay; two angle core holes drilled into the east end wall from a work deck in the Gate 4 spillway bay; and two vertical NXWL core holes, one through each of the abutments adjacent to spillway bays 1 and 4
- Core was structurally logged, photographed, boxed, and stored

- In situ stress measurements were conducted at 5-foot intervals down vertical holes drilled from the spillway bars in Gates 1 and 4
- Video logging was completed in boreholes using an OBI-40 optical televiewer; collected a 360° borehole wall image, borehole dip, tool azimuth, and tool internal temperature. The OBI-40 image azimuth may be influenced by the steel in the gates
- Hole were abandoned with tremie-placed cementitious grout

* Formerly as Agapito Associates, Inc.



