

 **Miscellaneous****Reference Details:**

Owner West Kootenay Power Ltd., South Slokan, BC, Canada

+++ **General**

Contractor KANI Foundation Technologies Inc., Richmond, BC, Canada

+++ **Structural design** ACRES International Ltd., Vancouver, BC, Canada

DSI Services Supply, installation, grouting and stressing of a total of 72 DYWIDAG strand anchors with double corrosion protection sizes 19, 37 and 46-0.6" ranging in length between 41 and 65 m.



Seismic safety with Double Corrosion Protected Strand Anchors

Retrofit of Brilliant Dam, Kootenay River, British Columbia, Canada

To provide additional seismic and flood event stability for Brilliant Dam, DSI Western Canada installed DYWIDAG multistrand anchors with double corrosion protection into the spillway. The strand anchors in various sizes and lengths were installed with a 7.5-ton capacity uncoiler. The installation on the upstream side of the dam was conducted from a barge. After drilling and water testing, the engineers used video-camera inspection of the boreholes to assess the borehole condition and to decide on consolidation grouting measures.

Corrugated sheathing was placed in the boreholes and strand anchors were installed. DSI field personnel injected the bond length with cement grout inside and outside the corrugated sheathing. After proof and performance tests, the anchors were stressed and the free anchor length inside and outside the corrugated sheathing second stage grouted for corrosion protection. The area below the wedge plate was grouted to complete the installation.