

New Post Creek Generating Station

Abitibi Canyon, Ontario, Canada

Keller continuously provided slurry material 24 hours per day, 7 days a week using an automated grout plant to complete the project.



The project

Ontario Power Generation Inc. and its partner, Coral Rapids Power LP, proposed to develop approximately 25 megawatts of renewable hydroelectric power through the construction of a new generating station on New Post Creek near its outlet to the Abitibi River. The station required the partial deviation of the existing New Post Creek and the creation of a reservoir.

The challenge

Keller needed to supply cement-bentonite slurry at $12m^3$ /hr continuously to avoid cold joints in the cut-off wall and to ensure the mixed slurry met the design specification of a permeability less than $1x10^{-6}$ cm/s. A schedule allowing an uninterrupted flow of slurry and proper maintenance to the equipment needed to be put in place.

The solution

A dam of approximately 565 m long was required to support the east and west shore of the reservoir. The core of the dam was built of a cement bentonite cut-off wall. The main contractor, Kiewit, was responsible for excavating the trench and placing the slurry. Detailed schedules were created for the cleaning and maintenance of the batch plant and pumps. Keller carried out specific gravity and viscosity checks every 30 minutes and cast 5 no. cylinder samples daily for strength and permeability tests.

Project facts

Owner(s)

Ontario Power Generation Inc. Coral Rapids Power LP

Keller business unit(s)

Keller

Main contractor(s)

Kiewit

Engineer(s)

Aecom

Solutions

Groundwater control and dewatering

Markets

Infrastructure
Dams and levees

Techniques

Slurry cutoff walls

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