

Pumped Storage Hydro-Electric Project Technical Guidance

Following the breach of the upper reservoir at the Taum Sauk Pumped Storage Project, the investigation of the incident revealed that the water level management and control of the upper reservoir was a significant factor. Accordingly, FERC in coordination with our Licensees undertook a technical review to determine if any of the other 20 pumped storage projects under FERC jurisdiction had similar deficiencies that could affect the safety of those projects.

The effort included a review of the available technical guidance for the safe water level management and control at pumped storage projects. The technical review concluded that the development of technical guidance for the safe operation of the pumped storage projects would be useful. A summary of the review is described in the following link:

[Summary](#)

Overtopping of project water retaining structures by over pumping due to a failure of water level control systems is an important and unique potential failure mode at pumped storage projects. The [Pumped Storage Hydro-Electric Project Technical Guidance](#) provides technical guidance for owners to assess the safe operation of their pumped storage projects and the adequacy of their safety management and control programs. The guidance specifically focuses on water level management and control.

Although pumping is the principle aspect that sets pumped storage projects apart from conventional hydroelectric projects, water level management and control can be equally important for conventional hydroelectric facilities. The [Pumped Storage Hydro-Electric Project Technical Guidance](#) provides important useful considerations applicable to both pumped storage and conventional hydroelectric facilities.

The [Pumped Storage Hydro-Electric Project Technical Guidance](#) was prepared by a Task Group comprised of owners of pumped storage projects, consultants with specific expertise in pumped storage projects and water level control and management, and FERC staff. It was reviewed by the Pumped Storage Users Group. The [Pumped Storage Hydro-Electric Project Technical Guidance](#) may be downloaded at:

[Pumped Storage Technical Guidance – Final Version, October 2007](#)