Commission Conducts Investigation

Of Taum Sauk Dam Breach

Federal Energy Regulatory Commission Chairman Joseph T. Kelliher today announced that teams of engineers are investigating the dam breach at the Taum Sauk hydroelectric facility near Lesterville, Missouri.

The Commission’s team of dam safety engineers with the assistance of a panel of outside experts will be engaged in a fact-driven forensic engineering examination to determine what factors contributed to the dam breach. The outside experts will work independently of Commission staff to assure that no facts or failure mechanisms are overlooked.

The Commission also has established a dedicated page on the agency’s Website (www.ferc.gov) designed to help keep the public informed regarding the status of the Commission’s investigation, Chairman Kelliher noted.

“The Commission has initiated an intensive engineering-based analysis to determine exactly what occurred at the facility. It will be an open and transparent process,” said Chairman Kelliher. “FERC’s hydropower safety program is a model for the world. To the extent there are lessons to be learned from this event, we will apply them,” he said.

The 470-megawatt pumped storage facility is owned and operated by AmerenUE. The project uses off-peak electricity generation to pump water from a reservoir at the base of the Taum Sauk Mountain to an upper reservoir atop the mountain. The pumped water is then released to generate electricity during periods of peak demand.

On Dec. 14, 2005, the northwest corner of the Taum Sauk project’s upper reservoir breached at 5:20 a.m. CST. Approximately 4,300 acre-feet of stored water, or more than 1 billion gallons, flowed through the Johnson’s Shut-Ins state park and into the East Fork of the Black River, upstream from the project’s lower reservoir. An acre-foot is the amount of water it would take to flood an acre of land one-foot deep.
This resulted in a two-foot surge downstream at Lesterville, a level that stayed within the river’s banks. The Taum Sauk facility’s emergency plan was successfully implemented and the town was temporarily evacuated.

The Commission’s Office of Energy Projects is spearheading the agency’s investigation of this dam breach. The dam safety program is completely separate from the hydropower licensing program and the Commission’s other functions, such as rate regulation, emphasized J. Mark Robinson, Director of the Office. “Our job is to ensure these facilities are safe – period. And if a problem does develop, our job is to find out why and fix it. No other factors come into play,” he said.

“Saluda Dam illustrates the Commission’s commitment to safety,” Chairman Kelliher said, citing the Commission’s response to seismic safety concerns at the Saluda Dam project in South Carolina (P-516). Given new data that indicated an earthquake could compromise the dam’s integrity, the Commission ordered South Carolina Electric & Gas Co. to undertake a $250 million remediation project to ensure the 200-megawatt hydroelectric facility’s seismic stability.

Last week, the Commission dispatched a team of five engineers to the Taum Sauk facility immediately after the breach. A team of four engineers is at the facility this week. The team of independent engineers will investigate the site next week.

At this point in the Commission’s investigation, staff has found the lower reservoir to be structurally sound. The flow from the reservoir breach passed through the spillway of the lower concrete gravity dam with no impacts on the structure. The Commission is still in the early stages of its investigation, which involves gathering the necessary facts and data to perform the engineering analyses to determine what factors contributed to the breach.

“Our investigation will determine the factors that caused this event, and the timing of any conclusion to our investigation will be driven by the facts. We will determine what details must be addressed in order to restore the upper reservoir and ensure the safety of the structures. Until the Commission’s investigation is completed, we urge against speculation as to what contributed to this breach,” said Chairman Kelliher.