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FEDERAL ENERGY REGULATORY COMMISSION
Office of Energy Projects
Division of Dam Safety and Inspections - Chicago Regional Office
230 South Dearborn Street, Suite 3130
Chicago, Illinois 60604
(312) 596-4430 Office - (312) 596-4460 Facsimile

In reply refer to: P-8423
NATDAM Nos. MN00510

February 5, 2019



Ms. Crystal Johnson
City Manager
City of Granite Falls
641 Prentice Street
Granite Falls, MN 56241-1598

Re: Re-Classification of Hazard Potential to LOW- Granite Falls Dam
FERC Project No. 8423

Dear Ms. Johnson:

The Granite Falls Dam is currently classified as having a significant hazard potential based on a modeled failure of the dam causing inundation in a downstream commercial area as identified by a 2007 study. Our July 15, 2008 letter reviewing that study changed the hazard potential classification from high to significant. Additional flood protection measures were taken by the City since our 2008 letter: the City Hall was moved to higher ground, the Copeland Building was demolished, and the Korthuis Jewelry Building was flood-proofed.

A more recent Dam Break Analysis and Inflow Design Flood Determination for the Granite Falls Dam was submitted with a January 29, 2016 letter. The analysis was conducted by your consultant, Mr. Omid Mohseni, P.E., of Barr Engineering of Minneapolis, MN. Your consultant concluded no inhabited structure downstream of the dam would experience a significant incremental rise due to the failure of the dam under any of the antecedent flow conditions analyzed. Based on his analysis, your consultant recommends reclassifying the dam as having a low hazard potential.

The consultant's model showed significant incremental rises from a dam failure at inflows up to 17,500 cfs. However, the one structure impacted from a failure at these inflows has been flood proofed by the city to safely allow flow through the building and would already be inundated by more than two feet during inflows of 17,500 cfs. The

100-year flood (Annual Exceedance Probability of 1%) is estimated to be 39,000 cfs from a 2001 USACE study. The project's spillway capacity with zero freeboard is 40,000 cfs.

Based on our review, we concur with the consultant's conclusion. We accept changing the hazard potential classification of the Granite Falls Dam to **LOW**. In accordance with Section 2-3.3 of *The Engineering Guidelines for the Evaluation of Hydropower Projects*, the Inflow Design Flood (IDF) for the dam is 39,000 cfs.

Because there would still be affects to downstream areas during high flows whether there is a dam failure or not, you must continue to keep the project's Emergency Action Plan (EAP) current and accurate. As part of this, the EAP should incorporate the results from the current (2015) dambreak analysis and describe procedures for ensuring the gates at 757 Prentice Street are being opened in a timely manner and identify the flows at which the businesses located on Prentice Street at 703, 709, 713, 715 and 723, behind the flood wall, are being evacuated.

In addition to maintaining the EAP as described above, you must annually perform a field reconnaissance to verify if there are any changes to upstream and downstream conditions that would affect the project's hazard potential classification. Please inform us of your findings with your annual submittal of the EAP Status Report, which is due annually by December 31.

You may contact Mr. Strat at 312.596.4450 teodor.strat@ferc.gov or me at 312.596.4430 or if you have any questions.

Sincerely,



John A. Zygaj, P.E.,
Regional Engineer