FEDERAL ENERGY REGULATORY COMMISSION
Office of Energy Projects
Division of Dam Safety and Inspections – San Francisco Regional Office
100 First Street, Suite 2300
San Francisco, CA 94105-3084
(415) 369-3300 Office – (415) 369-3322 Facsimile

April 28, 2023

In reply refer to:
Project No. 77-CA

VIA FERC Service

Mr. Jan Nimick, Vice President
Pacific Gas and Electric Company
Mail Code N11E
P.O. Box 770000
San Francisco, CA 94177-0001

Re: Scott Dam Simplified Seismic Stability Analysis and Interim Risk Reduction Measure

Dear Mr. Nimick:

This responds to a letter dated March 17, 2023, from Mr. David Ritzman that submitted the results of a simplified seismic stability analysis and proposed interim risk reduction measure for Scott Dam, which is part of the Potter Valley Project No. 77. We have reviewed the submittal and we have the following comments:

1. Simplified Seismic Stability Analysis:

   In general, we agree with the conclusions of the analysis including the potential for seismic instability of the dam under the analyzed updated seismic loading. We understand that you are progressing with more rigorous seismic stability analyses. We encourage you to evaluate the existing simplified analysis to address the following comments prior to completing the more rigorous analyses:

   a. The analysis states that "a crack is assumed to heal if compression develops at the crack tip." This assumption is likely underestimating the crack length as the effective section modulus of the contact is reduced and the crack will continue to progress past the assumed length. During this load case, it is likely that the crack has progressed all the way through the dam. A 2-D non-linear analysis should be able to show this behavior.

b. If the crack has extended through the dam, then the uplift used in this analysis is overly conservative. Once the crack extends all the way through the dam, the uplift distribution should be as explained in Chapter 3 of the Commission's Engineering Guidelines. If the crack is in compression for the post-earthquake case, hydraulically it should be treated as a closed crack.

c. Perform sensitivity analyses to determine the following:
   i. The earthquake return period at which significant damage to the dam will initiate; and
   ii. The impacts to the stability analysis based upon different reservoir elevations.

2. Proposed Interim Risk Reduction Measure:

a. As stated in the Division of Hydropower Administration and Compliance's (DHAC) letter issued March 28, 2023, in order to leave the spillway gates in the open position indefinitely, you must file an application to amend your license with DHAC. In the meantime, you must maintain compliance with the conditions of your license.

b. Based on current operations, slide gates 1, 2, 3, 4, 21, 24, 25, and 26 remain fully closed year-round to preclude certain hydraulic conditions from developing and overtopping the spillway training walls during large flows. Please clarify your proposed interim risk reduction measure in relation to the planned operations of these slide gates.

Within 45 days of the date of this letter, please address our comments or provide a plan and schedule to address our comments. File your submittal using the Commission's eFiling system at https://www.ferc.gov/ferc-online/overview. When eFiling, select Hydro: Dam Safety; San Francisco Regional Office from the eFiling menu. The cover page of the filing must indicate that the material was eFiled. For assistance with eFiling, contact FERC Online Support at FERCOnlineSupport@ferc.gov, (866) 208-3676 (toll free), or (202) 502-8659 (TTY).

We appreciate your cooperation in this aspect of the Commission's dam safety program. If you have any questions, please contact Mr. Ryan Tom at (415) 369-3347.

Sincerely,

Frank L Blackett, P.E.

Digitally signed by Frank L Blackett, P.E.
Date: 2023.04.28 11:24:10 -07'00'

Frank L. Blackett, P.E.
Regional Engineer

cc:
Ms. Sharon Tapia, Division Manager
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