

FEDERAL ENERGY REGULATORY COMMISSION
Office of Energy Projects
Division of Dam Safety and Inspections – San Francisco Regional Office
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January 8, 2019

In reply refer to:
Project No. 2100-CA

Ms. Gwen Knittweis, Chief
Hydropower License Planning and Compliance Office
California Department of Water Resources
P.O. Box 942836
Sacramento, California 94236-0001

Subject: Request to Conduct Level 2 Risk Analysis for Oroville Dam Complex,
Tenth Part 12D Independent Consultant's Safety Review, FERC Project
No. 2100

Dear Ms. Knittwies:

This letter is in response to your December 21, 2018 letter requesting approval to perform a Level 2 risk analysis for the Oroville Dam complex for the Tenth Part 12D Independent Consultant's Safety Inspection in conjunction with the required Potential Failure Modes Analysis. The letter transmits California Department of Water Resources (DWR's) proposed risk analysis plan and includes resumes of proposed key risk analysis team members. The Level 2 risk analysis plan was developed to also satisfy recently signed Federal legislation.

We have reviewed the proposed plan and have the following comments:

1. We agree with the broader interpretation and definition of failure, as proposed in the plan.
2. The proposed Oroville Level 2 risk analysis matrix is acceptable.
3. The Level 2 risk analysis process described in the plan generally follows the FERC draft Level 2 risk analysis guidance and is acceptable.
4. The generic Level 2 risk analysis report table of contents is acceptable.
5. The proposed risk analysis team members identified in the plan are acceptable. These include the following consultants nominated by the United States Society on Dams (USSD):

- a. Dr. Dean Durkee, Gannett Fleming
- b. Mr. William Fiedler, HDR Inc.
- c. Mr. Thomas Hepler, Schnabel Engineering
- d. Mr. Daniel Osmun, HDR, Inc.
- e. Ms. Phoebe Purcell, HDR, Inc.
- f. Ms. Elena Sossenkina, HDR, Inc.

6. The proposed project schedule provided in the plan is acceptable.

The Level 2 risk analysis plan is acceptable provided the following comments are incorporated into the risk analysis process and risk analysis report:

7. We agree that potential failure modes (PFMs) that involved civil, mechanical, or electrical component malfunctions or abnormal operations that result in the dam or appurtenant structures not performing as designed would not be portrayed on the Oroville Level 2 risk analysis matrix because there is no potential for life loss. However, these PFMs should be described and the likelihood of occurrence of these PFMs documented in the Level 2 risk analysis report.
8. Non-failure and non-breach events that do not lead to potential life loss would not be portrayed on the Oroville Level 2 risk analysis matrix because there is no potential for life loss. However, these PFMs should be described and the likelihood of occurrence of these PFMs documented in the Level 2 risk analysis report.

DWR is authorized to conduct the Level 2 risk analysis in accordance with the proposed plan and above comments. FERC personnel will attend each proposed risk analysis session and will provide comments regarding the implementation of the plan to DWR personnel, as needed.

We appreciate your cooperation in this aspect of the Commission's dam safety program. If you have questions, please contact Mr. Doug Boyer at (503) 502-3048 or me at (415) 369-3318.

Sincerely,

Frank L. Blackett, P.E.
Regional Engineer

cc:

Ms. Sharon Tapia, Chief
CA Dept. of Water Resources
Division of Safety of Dams
P.O. Box 942836
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