FEDERAL ENERGY REGULATORY COMMISSION
Office of Energy Projects
Division of Dam Safety and Inspections – Portland Regional Office
1201 NE Lloyd Blvd, Suite 750
Portland, Oregon 97232
(503) 552-2700

4/2/2024

In reply refer to:
P-14803

VIA Electronic Mail

Mark Bransom
Chief Executive Officer
Klamath River Renewal Corporation
mark@klamathrenewal.org

Shannon Davis
Eastern Regional Administrator
Oregon Department of Environmental Quality
Shannon.davis@deq.oregon.gov

Tony Meyers
Principal Operating Officer
State of California, Department of Water Resources
anthony.meyers@water.ca.gov

Subject: Historic Diversion Tunnel Intake Structure Blast Plan, Iron Gate Development, Lower Klamath Project

Dear Mr. Bransom, Ms. Davis, and Mr. Meyers:

This letter is to acknowledge Mr. Bransom's March 26, 2024 letter transmitting the Historic Diversion Tunnel Intake Structure Blast Plan for the Iron Gate Development of the Lower Klamath Project, FERC No. 14803. We have reviewed the information provided and have the following comments:

1. In a March 27, 2024 phone conversation and email to Ms. Elisabeth Jacquot-Matt, of this office, Mr. Sean Iiams of McMillen confirmed the following:
    a. The subject blast plan applies only to removal of the lower diversion tunnel intake structure. The upper historic control structure, slope-mounted mechanical control equipment, and all support pedestals have already been removed.

b. The blasting contractor intends to remove the entire historic diversion tunnel intake structure, including the steel valves and all associated machinery and equipment contained therein, with a single blast.

c. Any part of the structure remaining after the blast will be mechanically removed.

2. We are unable to authorize the lower diversion tunnel intake structure blast based on the information provided in the subject blast plan. You must submit a revised blasting plan with the following additional information:

   a. Provide plan drawings and cross-sections showing location, depth, angle and type (e.g. decked or production) of each blast hole;

   b. Based on a March 29, 2024 call including representatives from this office, McMillen, Kiewit, and your independent blasting consultant, hole depths are to be determined in the field. Provide specific criteria for determining the depth of each hole;

   c. Provide the maximum number of holes per delay;

   d. Based on the March 29th call, the hole type will depend on where cavities within the structure are found. Therefore, the revised blast plan should designate holes to be loaded as Typical Deck Holes and holes to be loaded as Typical Production Holes based on the current understanding of the as-constructed condition (labeling the provided shot plan drawing is acceptable) and should describe what factors will affect the final designation.

   e. In the March 29th call, more details for the decking hole configuration were provided as well as some additional considerations for the stemming height in all holes. Provide these details and a description of how the final configuration of each hole will be determined.

   f. The plan states that 75ms delays will be used and identifies 282.24 lbs. as the maximum pounds per 8ms delay. Clearly state in the plan that the holes in each row will detonate simultaneously with a 75ms delay between each row, as discussed in the meeting.

   g. Provide the total number of 2”x16” Extra Gelatin cartridges to be used.

   h. Provide blast mat details;

   i. Provide a discussion of how the blasting activity may affect abutment rock stability and how this is being addressed.

3. Please refer to your previously submitted Copco No. 1 Adit, Diversion Tunnel Plug, and Dam blasting plans for general formatting, level of detail, and content suggestions.

4. Based on March 27, 2024 email correspondence from Mr. Iiams to Ms. Jacquot-Matt, we understand that the blasting contractor has already begun drilling the holes in accordance with the submitted blast plan. Ms. Katie Clarkson, branch chief of this office, by March 27, 2024 email, directed Mr. Iiams to stop drilling and stated that no blasting or related activities associated with the Copco No. 1 diversion tunnel intake structure may proceed. That direction remains in place until you receive formal authorization from this office.
5. You are reminded that no construction, decommissioning, or other work associated with the removal, including changes to previously authorized work, may proceed without review and authorization from this office.

Within 60 days of the date of this letter, please either respond to or submit plan and schedule addressing the comments above. File your submittal using the Commission's eFiling system at https://www.ferc.gov/ferc-online/overview. When eFiling, select Hydro: Dam Safety and Portland 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).

Thank you for your continued cooperation and interest in dam safety. If you have any questions, please contact Ms. Elisabeth Jacquot-Matt of this office at (503) 552-2712.

Sincerely,

DOUGLAS JOHNSON

Digitally signed by DOUGLAS JOHNSON
Date: 2024.04.02 14:13:20 -07'00'

Douglas L. Johnson, P.E.
Regional Engineer