

FEDERAL ENERGY REGULATORY COMMISSION  
Office of Energy Projects  
Division of Dam Safety and Inspections - Headquarters Office  
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October 5, 2017

In reply refer to:  
P-2082  
NATDAM-OR00559,  
CA00323, CA00234,  
CA00325

Mr. Mark A. Sturtevant  
Managing Director, Hydro Resources  
PacifiCorp Energy  
825 N.E. Multnomah, Suite 1500  
Portland, OR 97232

Mr. Michael Carrier  
President  
Klamath River Renewal Corporation  
423 Washington Street, 3rd Floor  
San Francisco, CA 94111

Subject: Proposed Removal of John C. Boyle, Copco No. 1, Copco No. 2, and Iron Gate Developments from the Klamath Project No. 2082, Transfer of the Developments to the Proposed Lower Klamath Project No. 14803, and Proposed Surrender and Removal of the Lower Klamath Project

Dear Mr. Sturtevant and Carrier:

On September 23, 2016, PacifiCorp and the Klamath River Renewal Corporation (Renewal Corporation) filed a Joint Application for Approval of License Amendment and License Transfer (Application) for the Klamath Project, P-2082. The application requests that the Commission designate the four developments on the main stem of the Klamath River (John C. Boyle, Copco No. 1, Copco No. 2, and Iron Gate) as a new FERC project to be known as the Lower Klamath Project, remove the developments from Project No. 2082, and transfer them to the Renewal Corporation under a separate license for the Lower Klamath Project No. 14803. Concurrently, the Renewal Corporation filed an Application for the Surrender of License for Major Project and Removal of Project Works (Surrender Application) for the Lower Klamath Project. According to the

Surrender Application, the Renewal Corporation seeks to surrender the license for the purpose of removing the four developments to achieve a free-flowing condition on the Klamath River. Currently, the Commission has not acted on either application, and PacifiCorp is the licensee for these four developments. If the Commission approves the transfer and it becomes effective, the Renewal Corporation will then be the sole licensee for the Lower Klamath Project. Therefore, this letter is addressed to both PacifiCorp and the Renewal Corporation.

Uncontrolled flow through a planned breach during removal activities can progress more quickly than anticipated, causing significantly higher discharge through the breach than expected. Removal of material on the downstream slope of an embankment dam can cause an increase in the hydraulic gradient within the embankment. Lowering of the reservoir can create upstream slope instabilities. In addition, the proposed transfer of these developments to the Renewal Corporation raises questions about the adequacy of funding, cost estimates, insurance, and bonding. Due to the magnitude of the proposed dam removals, the unprecedented actions that will be required, and the potential for safety issues, we are requiring you to convene an Independent Board of Consultants (BOC). The BOC shall review and assess all aspects of the proposed dam removal process to include:

- 1) Adequacy of available funding and reasonableness of updated cost estimates for the most probable cost and maximum cost for the full removal alternative, and the assumptions made to calculate those estimates;
- 2) Adequacy of amounts and types of insurance coverage and bonding arrangements for dam removal;
- 3) Plans for river diversion and care of water during removal activities;
- 4) Project documents including the Potential Failure Mode Analyses, Part 12D Independent Consultant Inspection Reports and the Supporting Technical Information Documents, to understand project specific aspects that could be significant to the dam removal process;
- 5) Dam removal schedules, plans and specifications, staging sequence, and supporting engineering studies, including geotechnical, hydrologic/hydraulic, and structural;
- 6) Project operations before during and after dam removals;
- 7) Current operating condition of project water retaining features and any potential complications during staged removal process;
- 8) Sequencing of dam removals to maintain project safety;
- 9) Ability during all phases of dam removal for the project to safely pass flood flows;
- 10) The safety of any portions of the water retaining structures or portions of other appurtenant features that may remain in place following dam removal;
- 11) Monthly construction reports, provided to the BOC and FERC for review

by the 10th day of the following month, during the dam removal process when any work is ongoing; and

- 12) Any additional information or analysis requested by the BOC.

The BOC must be a fully independent third party and must consist of at least 3 members with experience that covers the following engineering disciplines: civil engineering (with specialized experience in dam construction and removal of both concrete and embankment dams), civil engineering (with specialized experience in hydrology, hydraulics, and stream diversion), and geotechnical engineering. In addition, for review of the cost estimates, the BOC should include at least one member with experience in aquatic and terrestrial biology, and a Heavy Civil Construction cost estimator with experience in dam removal and restoration activities. To review funding adequacy, insurance coverage, and bonding, the BOC should include at least two members with experience as an insurance broker or consultant with experience advising clients concerning the scope and quantity of insurance coverage and bonding for large and complex civil construction projects. You may propose using the same individuals chosen to respond to the cost, insurance, bonding and other questions contained in Commission staff's additional information request issued October 5, 2017.

By letter, a copy of each proposed BOC member's resume must be submitted to the Director, Division of Dam Safety and Inspections (D2SI), for review and approval, and two copies submitted to the D2SI-Portland Regional Engineer. A letter transmitting a copy of each BOC member's resume should be submitted as follows:

- 1) One copy to the Director, D2SI, Washington DC;
- 2) One copy to the D2SI – Portland Regional Engineer; and
- 3) If the documents are not eFiled, an additional copy should be submitted to the D2SI-PRO Regional Engineer.

The BOC will operate as follows:

1. Formal BOC meetings will be scheduled to review and assess all financial and technical areas. The meetings should be scheduled at important milestones for the initial review, design, investigations, and analyses. It is anticipated that the meetings will be attended by members of the BOC, PacifiCorp, Renewal Corporation, the Renewal Corporation's consultants, and FERC.
2. At least two weeks prior to each BOC meeting, PacifiCorp and/or the Renewal Corporation, as appropriate, shall provide to the distribution list, below, a data package that contains:
  - a) An agenda for the meeting;

- b) A statement of the specific level of review the BOC is expected to provide;
- c) A list of the items to be reviewed and discussed with the BOC;
- d) Investigations, engineering analyses and reports, design drawings and specifications to be reviewed by the BOC, as appropriate;
- e) A list of questions to be answered by the BOC, if any;
- f) A discussion of significant events in the investigation or design that have occurred since the last BOC meeting; and
- g) A list documenting BOC recommendations, the current status and outcome of those recommendations, and the BOC report in which the recommendations were made.

The data package, as well as all project related correspondence, should be distributed as follows:

- a) One copy to each BOC member;
  - b) One copy to the D2SI-PRO Regional Engineer;
  - c) Three copies to the Director, D2SI, Washington DC; and
  - d) If the documents are not eFiled, an additional copy should be submitted to the D2SI-PRO Regional Engineer.
3. At the end of each BOC meeting, the BOC shall verbally present their conclusions, recommendations, and answers to the questions posed. Within two weeks, the BOC shall provide PacifiCorp and/or the Renewal Corporation with a copy of the BOC meeting report. Within two weeks from receipt of the BOC meeting report, PacifiCorp and/or the Renewal Corporation should distribute the report and a plan and schedule to comply with the BOC's recommendations or a statement identifying a plan to resolve any issue(s). In the event the BOC's recommendations are not implemented, detailed reasons for not doing so should be provided. We may require additional action after we review the above information. The BOC report and PacifiCorp's and/or Renewal Corporation's plan and schedule should but distributed as follows:
- a) One copy to the D2SI-PRO Regional Engineer;
  - b) Three copies to the Director, D2SI, Washington DC;
  - c) If the documents are not eFiled, an additional copy should be submitted to the D2SI-PRO Regional Engineer.
4. The BOC shall remain in effect through the design and removal process.
5. The final BOC meeting is to be held one month after completion of the removal of all dams and appurtenant structures. The final report shall assess the completed dam removal process. Within 45 days of the date of the final BOC report, copies of the report shall be distributed as in Item 3, above.

The Commission has not yet approved your application to amend the Klamath Project No. 2082 and transfer the above four dams to the proposed Lower Klamath Project No. 14803. Nor has the Commission acted on your application to surrender the proposed Lower Klamath Project and remove these four developments. However, given your proposed timeline to seek Commission approval and to begin deconstruction work by January 1, 2020, we are notifying you of the need for the BOC and requiring you to submit resumes for your proposed BOC members for approval within six months from the date of this letter. If you have any questions regarding this letter, please call me at 202-502-6314.

Sincerely,

David E. Capka, P.E.  
Director, Division of Dam Safety  
and Inspections