FEDERAL ENERGY REGULATORY COMMISSION
Washington, D. C. 20426

OFFICE OF ENERGY PROJECTS

Project No. 637-081-Washington
Lake Chelan Hydroelectric Project

September 28, 2011

Ms. Michelle Smith
Licensing & Compliance Manager
Public Utility District No. 1 of Chelan County
P.O. Box 1231
Wenatchee, WA 98807-1231

Subject: Instream Flow and Ramping Rate Deviations Pursuant to Article 405 of the License

Dear Ms. Smith:

This is in response to your filing submitted on May 18, 2011, pertaining to a deviation from instream flow and ramping rates requirements at the Lake Chelan Hydroelectric Project, FERC No. 637. You submitted the filing pursuant to Article 405 of the license, [1] and your approved Operations Compliance and Monitoring Plan (Plan).[2]

License Requirements

Article 405 of the license requires you to file a Plan that describes how you will comply with the instream flows, ramping rates, and tailrace flows, as set forth in Article 7 of the Lake Chelan Settlement Agreement, (Agreement) and Chapter 7 of the Comprehensive Plan attached to the Agreement. Under the Agreement, you are required to maintain a minimum instream flow of 320 cfs into Reach 4 of the Chelan River, for

[1] See, Order on Offer of Settlement and Issuing New License, 117 FERC ¶ 62,129, issued November 6, 2006.

[2] See, Order Modifying and Approving Operations Compliance and Monitoring Plan Article 405, 121 FERC 62,152, issued November 30, 2007.

steelhead trout spawning, from March 15 through May 15, and to maintain minimum instream flows of 80 cfs into Reach 1-3, from July 16 through May 14. In addition, under Article 405 of the license you are required to notify the Washington Department of Ecology (Ecology) and the Commission within 48 hours after you become aware of any deviation from the minimum flow requirements.

In accordance with the approved Plan, you are required to file a report with the Commission, within 30 days of any deviation from minimum flow requirements, lake levels or ramping rates. The report must to the extent possible, identify the cause, severity, and duration of the incident, and any observed or reported adverse environmental impacts resulting from the incident. The report must also include: operational data necessary to determine compliance with the license requirements regarding minimum flows, lake levels, and ramping rates, as appropriate; a description of any corrective measures implemented at the time of occurrence and the measures implemented or proposed to ensure that similar incidents will not recur; and comments or correspondence, if any, received from the resource agencies and others regarding the incident.

Instream Flow and Ramping Events

In the filing, you reported that during the afternoon of April 18, 2011, instream flow and ramping rate deviation events occurred at the project. This occurred at the same time that project operations shifted minimum spawning period flows into Reach 4 of the Chelan River from the Pump Station to the Low Level Outlet (LLO). You report that the deviation was due to an undetected problem with the Control System Logic that caused a LLO gate to close rather than to open a second gate, as was expected by your plant operator. Therefore, your operator contacted personnel near the site of the LLO, and they were able to open the control panel at the low level outlet and use manual override to reopen the gate and restore the required flow.

In the filing, you explain that the event began at about 14:07 hours with LLO flows at 320 cfs. A manual override was performed at 14:16 hours, reversing the closing of the first slide gate. Then, a manual opening of the second slide gate was performed at about 14:22 hours. Flows from the LLO changed from 320 cfs at 14:08 hours to a low 133.3 cfs at 14:18 hours, then flows began increasing and reaching 322.2 cfs at 14:32 hours. The effects of the LLO gate closure resulted in flows below the required minimum flow of 320 cfs for a period of 35 minutes and water levels decreasing at about nine inches in Reach 4, and exceeding the two inches per hour maximum ramping rate. In addition, minimum flow and ramping rate deviations occurred in Reaches 1-3 of the Chelan River. The LLO flows were below the required minimum flow of 80 cfs for a period of nine

minutes and water level also decreased exceeding the two inches per hour ramping rate. LLO flows were stabilized and have been maintained at between 330 cfs to 340 cfs since the event. You state in the filing, that the gates will remain on manual control until the automated control system can be reprogrammed and tested.

In addition, you state in the filing, that no adverse biological effects were observed as a result of the incident. Visual observations using security cameras determined that pools in Reach 1 below the LLO were not dewatered during the incident. No fish stranding or mortality was observed in Reach 4 either during the event or noted during surveys conducted the next day. Furthermore, you state in the filing that you reported the deviation to the Commission's Portland Regional Office and Ecology via electronic correspondence on April 20, 2011, within 48 hours of when you became aware of the incident.

Conclusion

After reviewing the information included in your report, we have determined that the instream flow and ramping rate deviations that occurred on April 18, 2011, will not constitute a violation of the project license. The incident was caused by a malfunction of the automated control system logic, and you took care of the situation, by manually operating the gates. No adverse biological impacts were observed as a result of the incident. Your filing adequately fulfills the reporting requirements pursuant to Article 405 of the license and your approved Plan. Thank you for your cooperation. If you have any questions concerning this letter, please contact Anumzziatta Purchiaroni at (202) 502-6191, or by e-mail at anumzziatta.purchiaroni@ferc.gov.

Sincerely,

William Guey-Lee

William Guey-Lee
Chief, Engineering Resources Branch
Division of Hydropower Administration
and Compliance

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