

FEDERAL ENERGY REGULATORY COMMISSION  
Washington, D. C. 20426

OFFICE OF ENERGY PROJECTS

Project No. 637-092-Washington  
Lake Chelan Hydroelectric Project

**July 26, 2013**

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

Subject: Minimum Flow Deviation Pursuant to Article 405 of the License

Dear Ms. Smith:

This is in response to your filing submitted on April 18, 2013, pertaining to an instream flow deviation that occurred at the Lake Chelan Hydroelectric Project, FERC No. 637. You submitted the filing pursuant to Article 405 of the license<sup>1</sup> and your approved Operations Compliance and Monitoring Plan (Plan).<sup>2</sup>

**License Requirements**

Article 405 of the license requires you to implement 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 flow requirement of 320 cubic feet per second (cfs) into the Chelan River Reach 4 from March 15 through May 15, for steelhead spawning. 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 became aware of any deviation from the minimum flow requirements.

In accordance with the approved Plan, you are required to file a report with the

---

<sup>1</sup> *Public Utility District No. 1 of Chelan County*, 117 FERC ¶ 62,129 (2006).

<sup>2</sup> *Public Utility District No. 1 of Chelan County*, 121 FERC ¶ 62,152 (2007).

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 Deviation**

In the filing, you explained that the required minimum flows of 320 cfs were in effect in the Reach 4 Habitat Channel beginning March 15, 2013. These flows were provided using a combination of 80 cfs from the Low Level Outlet (LLO) at the dam and at least 240 cfs from the tailrace pump station, which contains 5 pumps.

You reported that a minimum flow deviation occurred on March 18, 2013, at approximately 17:51 hours, when the low suction safety relay caused Pump 3 to shut down. Your operators at the Rocky Reach control room initiated a remote resetting of Pump 3, which in turn, caused a trip of the remaining four pumps. Therefore, your operators reset the station and all five pumps returned to service. However, you reported that for a total lapse of 13 minutes, pump 3 experienced a re-trip due to a loss of air pressure to the differential controls for monitoring intake screen cleanliness. You dispatched some Rocky Reach and Chelan operators to Lake Chelan headworks to manually open the LLO and flows were increased from 82 cfs to 124 cfs, replacing flow that would normally have been provided by Pump 3. The station was reset and flows were reestablished in Reach 4 at 384 cfs (124 LLO plus 260 cfs pumped), which caused flow fluctuations for a total lapse of 11 minutes. Your operators re-started the intake screen cleaning air burst/differential control system air compressor and re-programmed the pump system trip limits.

You report that this event resulted in brief drops in water levels in the pool at the pump station canal outlet structure at the head of the Reach 4 Habitat Channel. Also, the flow into Reach 4 of the Chelan River was below the required 320 cfs minimum flow for approximately two hours, based on the time lag necessary for increased flows from the LLO to arrive at Reach 4. The water level drop was approximately 4 inches over the time period from 17:52 to 18:52 hours, and then a short water level drop of about 9 inches occurred over a 12 minute period between 19:28 and 19:40 hours.

You reported that the failure was due to a faulty valve in the air blast screen cleaning system, which caused an erroneous differential signal and initiated the trip of Pump 3. You replaced the faulty valve on March 21, 2013.

You reported that no adverse environmental effects resulted from the short term loss of flow and drop in water levels. The incident did not cause any stranding of Chinook fry because water temperatures in Reach 4 were still quite cold at the time of the incident and Chinook fry were hiding in the substrate to avoid predators. Furthermore, you state that you reported the incident to the Commission's Portland Regional Office and Ecology via electronic correspondence on March 20, 2013, within 48 hours of when you became aware of the incident. No comments were received in reference to the incident.

### **Conclusion**

After reviewing the information included in your report, we have determined that the minimum flow deviation that occurred on March 18, 2013, will not constitute a violation of Article 405 of the license. The incident was caused by a faulty valve in the air burst cleaning system, which was beyond your control. You took immediate corrective action and restored the flow in a prompt manner. 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](mailto:anumzziatta.purchiaroni@ferc.gov).

Sincerely,

*for* Kelly Houff  
Chief, Engineering Resources Branch  
Division of Hydropower Administration  
and Compliance