

UNITED STATES OF AMERICA 129 FERC ¶ 62,183
FEDERAL ENERGY REGULATORY COMMISSION

Public Utility District No. 1 of Chelan County, Washington Project No. 2145-101

ORDER MODIFYING AND APPROVING OPERATIONS PLAN
PURSUANT TO LICENSE ARTICLE 402

(Issued December 08, 2009)

1. On August 19, 2009, Public Utility District No. 1 of Chelan County, Washington, (licensee or Chelan PUD) filed its Operations Plan pursuant to license article 402¹ for the Rocky Reach Hydroelectric Project (FERC No. 2145). The Rocky Reach Project is located on the mid-Columbia River in Chelan County, Washington, and occupies about 1,500 acres, of which about 164 acres are federal lands managed by the U.S. Department of the Interior's Bureau of Land Management. As discussed below, this order approves the licensee's proposed plan with minor modifications.

BACKGROUND

2. License article 402 requires Chelan PUD to file an Operations Plan for Commission approval within six months of the issuance date of the license and by February 15 each year thereafter.

3. The plan is to include, but not be limited to, the following: (a) descriptions of fisheries- and water quality-related operating criteria for the project turbines, the downstream fish passage facility, fishways, spillways, and sluiceways; (b) descriptions of fisheries- and water-quality-related protocols for startup, in-season operation, shutdown, and inspection of the project turbines, the downstream passage facility, fishways (including fish salvage), spillways, and sluiceways; and (c) an annual schedule for operation and inspection of these facilities.

4. Further, article 402 requires the licensee to prepare the plan after consultation with: U.S. Fish and Wildlife Service; National Marine Fisheries Service; Washington Department of Fish and Wildlife; Washington Department of Environmental Quality; Confederated Tribes of the Umatilla Reservation; Confederated Tribes of the Colville Indian Reservation; and Confederated Tribes and Bands of the Yakama Nation. Article

¹ Order on Offer of Settlement and Issuing New License (issued February 19, 2009). 126 FERC ¶ 61,138.

402 requires the licensee to include with the plan, copies of comments and recommendations on the completed plan after it has been prepared and provided to the above entities, and specific descriptions of how the entities' comments are accommodated by the plan.

5. Lastly, article 402 reserves the right of the Commission to make changes to the plan. Upon Commission approval, the licensee shall implement the plan, including any changes required by the Commission.

LICENSEE'S OPERATIONS PLAN

6. The licensee stated that operation of the project, with respect to upstream and downstream fish passage, is guided by the terms and conditions of the Habitat Conservation Plan (HCP).² The licensee's Operations Plan proposes specific operations and procedures to pass fish through the project facilities to meet the standards agreed upon in the HCP. The plan also proposes operational procedures to meet the State's water quality standards. The licensee's Operations Plan is divided into five sections that describe: the turbines operating criteria and protocol; the juvenile fish bypass system; the spillway operating criteria and protocol; adult fishways; and the Dryden and Tumwater fishways and traps.

A. Turbine Operating Protocol

7. The project powerhouse contains 11 vertical-axis turbines. The licensee stated that generally, the turbines are operated as needed for producing electricity and do not have an operation season or schedule. However, the licensee proposed that during the juvenile fish migration season, it will prioritize the dispatch of generating units to promote optimal fish guidance efficiency of the Bypass System, with unit priority for starts and stops. During juvenile fish passage season (April 1 – August 31), the licensee stated that turbine units 1 and 2 will operate at a soft-limit of 12 to 12.5 thousand cubic feet per second (kcfs) each to limit high velocities at the turbine intake screens.

8. The licensee further proposed to adjust turbine unit 11's loading as needed, during daylight hours from May 1 through October 31 of each year, during periods when the

² The HCP is an agreement between the licensee, several resource agencies and two Native American Tribes to protect five species of Columbia River salmon and steelhead by implementing a combination of fish bypass systems, spill, habitat restoration, and off-site hatchery programs and evaluations. The new license requires the continued implementation of the HCP.

powerhouse is not fully loaded. The licensee stated that this can be used as a tool to enhance adult fish passage at the left powerhouse fishway entrances.

9. The licensee also stated that because units 1 and 2 provide attraction water flows, they are important components of the bypass system; therefore, the licensee proposed that long-term outages of the two units will be avoided during the juvenile passage season. The licensee proposed to inspect the turbines as necessary based on hours operated and other associated stresses. The licensee stated that to the extent possible, maintenance of priority units will be scheduled outside of fish passage periods, and to minimize total dissolved gas (TDG) uptake in the tailrace, Chelan PUD will, to the extent practicable, avoid maintenance outages during the high flow periods. The licensee proposed to schedule maintenance based on predicted flows when possible.

B. Juvenile Fish Bypass System

10. In 2002, Chelan PUD constructed a permanent juvenile fish bypass system to guide migrating fish before they enter the powerhouse and divert them downstream past the dam, and began operation of the system in 2003. Chelan PUD proposed to operate the system continuously from April 1 to August 31. The licensee added that operation outside April 1 to August 31 may occur if it is deemed necessary to encompass 95 percent of the juvenile salmon and steelhead run based on decisions by the HCP Coordinating Committee. The licensee's plan describes the details and procedures for operating the bypass system.

11. The licensee stated that the bypass system will be taken out of operation after the juvenile fish bypass season for the fall/winter shutdown period and annual maintenance. The licensee added that the bypass system may also be removed from service due to unforeseen emergency repairs during the fish migration season; however, a fisheries biologist will be on-site for coordination and oversight of maintenance activities during the April 1 to August 31 operating season. Chelan PUD stated that if unscheduled project maintenance causes an outage of the bypass system during the juvenile fish migration season, its fisheries biologists would inform the HCP Coordinating Committee of the problem in order to receive advice in management activities.

C. Spillway Operating Criteria and Protocol

12. The licensee stated that spillway releases, to pass water in excess of turbine capability for load requirements or for fish passage, are controlled by a computer. The licensee added that when the headwater level exceeds operator-set maximum points, gates are automatically opened to pass the excess flow. The licensee stated that spill gates are opened to create a tailrace pattern of turbulent water, the edges of which lead

toward the adult fishway entrances. This spill pattern was designed to provide favorable guidance conditions for adult migrant salmon and steelhead.

13. Chelan PUD stated that during fish passage spill operations, the sequence and amounts of gate opening can be adjusted to maximize the effectiveness of the water being spilled, both for juvenile passage and adult attraction flows. Based on a daily spill memo sent by the Chelan PUD Spill Coordinator, plant operators input into the system the volume of spill, begin time, and end time requested. The computer then determines, based on the program, which gates to open and how far. The licensee stated that on occasion, daily spill volumes are revised later in the day based on flows from Grand Coulee and Chief Joseph dams.

14. The licensee stated that the Rocky Reach Project normally provides spill for juvenile sockeye and summer Chinook salmonid passage to cover 95 percent of the run at each of the projects in accordance with the criteria set forth in the HCP. The licensee's Operations Plan provides a spilling schedule for the Rocky Reach dam.

15. Chelan PUD operates the Project in a manner to avoid spill as much as possible. When spilling for fish or due to excess inflow or generation, the spillway is operated using gate settings that limit TDG production and meet fish passage requirements. The licensee's Operations Plan describes the monitoring schedule for TDG and the protocol for making changes to the spill volume. The licensee stated that the objective for monitoring TDG is to maintain as much of the spill level scheduled for fish passage operations as possible without exceeding TDG criteria.

D. Adult Fishways

16. The licensee stated that adult fish passage facilities at the project provide upstream passage for both anadromous and native fish species. The licensee added that the facilities consist of a fishway, with a right power powerhouse entrance and a left powerhouse entrance, powerhouse collection and transportation channels, a spillway tunnel channel, a main spillway entrance, and a fish ladder. The adult fish passage facilities also include three turbine-driven, propeller-type pumps that supply water from the tailwater of the project for the powerhouse fishway entrances, most of the spillway entrance flow, and the six orifice gates along the powerhouse collection channel.

17. The licensee stated that for operation and maintenance purposes, the primary fish passage season is considered to be April through November. The licensee added that adult fish facilities will be operated from March 1 to December 31 each year; however, if more time is required to complete critical fishway maintenance during the annual fishway

overhaul period, it will consult with the HCP Coordinating Committee for guidance. The licensee's Operations Plan included a schedule for primary adult salmonid passage periods by species.

18. The licensee's Operations Plan also described specific operational criteria that included: water depth over weirs; water velocity limits; fishway entrance openings or gate settings; debris removal; and water level monitoring. Additionally, the licensee's Operations Plan described: the dewatering of the fish facilities for annual maintenance and the handling of fish during that process; inspection of the facilities and reporting of the condition of the facilities; and when scheduled and unscheduled maintenance would occur.

E. Dryden and Tumwater Fishways and Traps

19. The licensee stated that the Dryden weir and Tumwater dam are located at river miles 17.6 and 32, respectively of the Wenatchee River which is a tributary of the Columbia River, with the confluence occurring approximately 7.5 miles downstream of Rocky Reach Dam. The licensee stated that it owns and operates the facilities and uses the fish ladders and traps at these facilities to collect broodstock for its salmon and steelhead hatchery program which is required pursuant to the HCP. The fish ladders and trapping facilities at Dryden and Tumwater have been made a part of the project facilities through Ordering Paragraph (B)(2) and Article 204 of the license.

20. The licensee proposed that the Dryden fish traps operate from July 1 through the end of November or until the required number of coho and steelhead are collected for the Yakama Nation and Eastbank Hatchery's broodstock programs. The licensee proposed to operate both traps continuously on a weekly basis, Sunday night through Friday afternoon. The licensee stated that Washington Department of Fish and Wildlife personnel would operate the traps from July through August and the Yakama Nation and Washington Department of Fish and Wildlife personnel would operate the traps from September through November. The licensee's plan described the operational procedures for the facility.

21. The licensee stated that the Tumwater fishway operates year round with the exception of the annual overhaul period (generally in January), and when the river flows at 10 kcfs or greater. The licensee's Operations Plan described the schedule and protocol for collecting fish at this facility.

22. The licensee's plan also included the following four appendices describing schedules and procedures for project operations in 2009. The appendices are titled: 2009 Fish Spill Plan; 2009 Operational Plan for Total Dissolved Gas During Fish Spill Season; 2009 Total Dissolved Gas Abatement Plan; and Annual Maintenance List.

AGENCY CONSULTATION

23. By letters dated June 12 and 18, 2009, the licensee provided a preliminary draft of its Operation Plan to the resource agencies and Tribes requesting any comments the parties may have regarding the plan. After modifying the draft plan, the licensee provided the agencies and Tribes, by letters dated July 10 and 14, 2009, a final draft plan and requested any additional comments on the plan.

24. Comments on the preliminary draft were received from Washington State Department of Ecology (WDOE). Comments on the final draft were received from Washington State Department of Fish and Wildlife (WDFW) and U.S. Fish and Wildlife Service (FWS). The licensee included the comment letters from the WDFW and FWS. The edits/comments made by the WDOE were in red-line format and not included in the licensee's filing. However, all comments by the three agencies, and the licensee's responses to the comments, were included as a summary table in an appendix to plan.

25. The WDOE and WDFW made approximately 56 comments on the licensee's Operations Plan. The licensee modified the plan and further clarified the plan in accordance with the agencies' suggestions. Similarly, the FWS had a number of comments that the licensee either incorporated into the plan or further clarified. Two comments from the FWS were noted by the licensee, and not entirely incorporated into the plan.

26. Specifically, the FWS stated it did not see a discussion in the plan of the phased survival standards in accordance with the Rocky Reach Habitat Conservation Plan for salmon and steelhead. The FWS suggested that the licensee insert a chart into the document which specifies achievement and steady progress toward applicable salmon and steelhead survival standards. The licensee responded that the suggested chart was not added to the plan because the purpose of the plan is to summarize project operations related to fisheries and water quality and it is not intended to provide a review of the HCP itself or achievements and progress toward the applicable survival standards. The licensee did, however, provide an internet link to the HCP in the Plan for readers who would like to learn more about the phased survival standards.

27. Secondly, the FWS stated that the document focused on project operation as it relates to salmon and steelhead. The FWS suggested the plan also discuss potential ladder modifications for the non-plan HCP species such as Pacific lamprey. The FWS stated that any modifications related to salmon and steelhead for this non-plan HCP species need to be closely coordinated. The licensee stated that it agrees that ladder modifications need to be included when the time is right; however, it has no plans to make any modifications to the ladders in 2009, and as modifications to the adult fishway are developed by the Rocky Reach Fish Forum, the Operations Plan will be updated.

DISCUSSION

28. With respect to the FWS's comment suggesting that the licensee insert a chart into the document which specifies achievement and steady progress toward applicable salmon and steelhead survival standards, the licensee indicated that the chart was not needed because the purpose of the plan is to summarize project operations related to fisheries and water quality and not to provide a review of the HCP itself or achievements and progress toward the applicable survival standards.

29. We agree that the requirements of article 402 pertain to fisheries and water quality related operating protocol, schedules and maintenance activities for the project turbines, the downstream fish passage facility, fishways, spillways, and sluiceways; however, some of the operation of those facilities are tied to survival standards for salmonids. Although a chart of the progress made toward achieving the survival standards was not included in the final plan, the plan did discuss operational procedures for optimizing the facilities to achieve passage objectives. Changes in the Operations Plan, via adaptive management, may at times be driven by the need to achieve survival objectives; therefore, some discussion of the progress made to achieve survival standards may be necessary in future plans to describe operational changes. However, the plan is not the instrument for reporting results to document achievement toward salmonid standards.

30. In response to the FWS's second comment not adopted in the final plan, the licensee stated that fish ladder modifications need to be included for such species as Pacific lamprey when the time is right. Since the licensee does not propose to make any modifications to the ladders in 2009, it does not appear appropriate at this time that the final plan discuss operation of the facilities for non-plan HCP species such as Pacific lamprey, when article 402 is connected to the HCP. The licensee's proposal to update the annual Operations Plan, when modifications to the adult fishway are developed by the Rocky Reach Fish Forum, appears reasonable.

31. The licensee stated that at times operational emergencies may occur which could require the project to deviate temporarily from the Operations Plan. The licensee stated that such deviations would be conducted to minimize impacts to fish and TDG and would be coordinated with the Rocky Reach Fish Forum and the HCP Coordinating Committee. The licensee did not indicate that it would file a report of the incident. Therefore, if the approved Operations Plan is temporarily modified for emergency reasons, the licensee should file a report with the Commission within 10 days of the event describing the emergency situation, the operational changes implemented as a result of the emergency, a schedule for resuming normal operation, any adverse environmental impacts associated with the emergency conditions, and any comments from the Rocky Reach Fish Forum or the HCP Coordinating Committee.

CONCLUSION

32. At the time of relicensing the Rocky Reach Project, the Confederated Tribes of the Umatilla Reservation recommend that Chelan PUD develop a detailed Operations Plan to address the effects of project operations on all native fish species and water quality. The Umatilla recommended that the plan address: turbine operations; spillgate inspections; bypass system operations and inspections; and fishway operations, inspections, and modifications. The Environmental Impact Statement developed for the relicensing proceeding stated that such a plan would consolidate all fisheries and water quality-related operational protocols and inspection procedures into a single document, which would simplify future reviews and updating.³ As part of the HCP, Chelan PUD annually produces a fish passage plan in consultation with federal and state agencies and the tribes. However, the fish passage plan developed under the HCP only describes operational measures employed to address salmon and steelhead passage and does not address other operations that could affect aquatic resources and it does not address operational measures for other native fish species or water quality. Therefore, to consolidate the descriptions of project operations implemented for aquatic resources and to expedite future environmental and compliance reviews, Article 402 required Chelan PUD to develop an Operations Plan to address all operations that could affect fish species and water quality. The 2009 Operations Plan meets those requirements and as management of salmonid and non-salmonid species changes, so too must the Operations Plan.

33. The licensee's Operations Plan provides details of operations and procedures necessary to safely pass fish through the project facilities to meet the standards agreed upon in the HCP. Additionally, the Operations Plan provides details of operations and procedures that the licensee proposes to take to meet water quality standards, particularly with relation to operations of the spillway to meet both fish passage requirements and abatement of total dissolved gas resulting from spillway operations. The licensee's plan meets the requirements of license article 402 and, as modified, should be approved.

The Director Orders:

(A) The Operations Plan, filed by Public Utility District No. 1 of Chelan County, Washington, (licensee) on August 19, 2009, pursuant to license article 402 for the Rocky Reach Hydroelectric Project, as modified in paragraph (B), is approved.

(B) The licensee shall file a report with the Commission within 10 days of any emergency situation that compels the licensee to temporarily deviate from the approved

³ Final Environmental Impact Statement for the Rocky Reach Project, FERC No. 2145-060. Issued August 4, 2006.

Operations Plan. The licensee's report shall describe the emergency situation, the operational changes implemented as a result of the emergency, a schedule for resuming normal operation, any adverse environmental impacts associated with the emergency conditions, and any comments from the Rocky Reach Fish Forum or the Habitat Conservation Plan Coordinating Committee.

(C) This order constitutes final agency action. Requests for rehearing by the Commission may be filed within 30 days of the date of issuance of this order, pursuant to 18 C.F.R. §385.713.

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and Compliance