

145 FERC ¶ 62,219
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Public Utility District No. 1 of Douglas County,
Washington

Project No. 2149-166

ORDER APPROVING WATER QUALITY ATTAINMENT PLAN PURSUANT TO
LICENSE ARTICLE 401

(Issued December 20, 2013)

1. On October 21, 2013, Public Utility District No. 1 of Douglas County, Washington (licensee) filed, for Federal Energy Regulatory Commission (Commission) approval, a water quality attainment plan (plan) for the Wells Hydroelectric Project. The plan is required by Article 401 of the Commission's November 9, 2012 Order Issuing New License.¹ The Wells Hydroelectric Project is located on the Columbia River in Douglas, Okanogan, and Chelan Counties, Washington, and partially occupies federal lands administered by the U.S. Department of the Interior and U.S. Army Corps of Engineers (Corps).

LICENSE REQUIREMENTS AND BACKGROUND

2. Article 401, in part, requires the licensee to file a water quality attainment plan for Commission approval that includes a compliance schedule for lowering total dissolved gas (TDG) levels below the 110 percent state standard,² as described in condition 6.7(2)(e) of the Washington Department of Ecology's (Ecology) Water Quality Certification (WQC). The plan must be developed in consultation with the National Marine Fisheries Service (NMFS), Washington Department of Fish and Wildlife (DFW), Confederated Tribes of the Colville Reservation (Colville), Confederated Tribes and Bands of the Yakama Nation (Yakama Nation), U.S. Bureau of Indian Affairs (BIA), and

¹ 141 FERC ¶ 62,104. Appendix A contains Ecology's Water Quality Certification.

² The Wells Reservoir occupies land within the boundaries of the Colville Indian Reservation. Although the plan does not address TDG in tribal waters as project operations do not affect reservoir TDG levels, the Colville Tribe's TDG standard is also 110 percent maximum.

U.S. Bureau of Land Management (BLM). Pursuant to Condition 6.7(2)(e) of the WQC, the licensee must obtain approval from Ecology on the plan prior to filing it with the Commission. The plan is due to the Commission within one year of issuance of the project license, or November 9, 2013.

3. The plan must identify reasonable and feasible improvements that could be implemented to meet TDG standards, including data on TDG levels flowing into the Wells forebay and its effect on project compliance. The plan must also detail the analytical methods that the licensee intends to use to evaluate potential improvements, including supplemental monitoring, and include benchmarks for tracking the licensee's progress toward implementing the plan.

4. The licensee may be exempt from the 110 percent maximum TDG standard when project inflows exceed 246,000 cubic feet per second (cfs), to allow for natural flood flows, or to aid in downstream fish passage, when approved by Ecology on a per application basis. The plan may account for these periods of exemption, and consequently aim to achieve three alternative TDG standards: TDG shall not exceed 125 percent in any one-hour period in the tailrace of the dam; TDG shall not exceed 120 percent in the tailrace of a dam as measured as an average of the 12 highest consecutive hourly readings in any 24-hour period; and TDG shall not exceed 115 percent in the forebay of the next dam downstream as measured as an average of the 12 highest consecutive hourly readings in any 24-hour period.

LICENSEE'S PROPOSED PLAN

Pre-Licensing Studies

5. Central to the proposed plan is the use of a Spill Playbook. To develop the Spill Playbook, the licensee implemented a series of assessments. These assessments evaluated the potential impacts of the project on TDG and assisted in the determination of the best spillway configuration and operational procedures to reduce TDG. In 2006, the licensee conducted a study to identify the lowest TDG-producing operating scenarios and verify the functionality of its TDG monitoring system. From its results, the licensee developed a Spill Playbook, intended to be used as a guide for project operators during fish passage season. The licensee, through continued computer modeling and testing, most recently updated its Spill Playbook for the 2012 spill season. Although the 2012 spill season saw atypically high flows, the project TDG saturations remained largely at compliant levels. As a result the licensee did not modify the Spill Playbook for 2013.

Water Quality Attainment Plan

6. The licensee's plan describes local factors causing increased TDG in the project area, and its methods for lowering TDG levels in order to comply with the TDG water

quality standards. The plan includes a step-wise approach for evaluating TDG production dynamics, and provisions to refine existing activities to ensure compliance.

7. The licensee would continue to update its Spill Playbook that was developed during pre-licensing studies, and use it to identify an operational framework for TDG management during the downstream fish passage spill season. Moreover, the licensee would expand the Spill Playbook to include year-round operations. The licensee would continue to include its Spill Playbook in its Gas Abatement Plan annual reports for the entirety of its 10-year compliance schedule.

8. Biological monitoring for indicators of gas bubble disease would continue, as described in the licensee's Gas Abatement Plan, and be used to further assess the water quality attainment plan's success. The licensee would respond to any hourly TDG saturations exceeding 125 percent with physical inspections of juvenile salmonids at the Rocky Reach Hydroelectric Project juvenile bypass facility and at the adult salmon traps at the project's fish ladders. The licensee would record percent occurrences and degree of gas bubble trauma observed. The results of this monitoring would be reported as part of the licensee's annual water quality report, as outlined in the Gas Abatement Plan.

9. The licensee would also build on previous studies by improving its current TDG production dynamics model and developing a higher resolution project operations database. The purpose of the database would be to better inform project operators toward the improvement of TDG management. It would include data pertaining to bypass barrier usage, unit flow, unit outages, spill gate flow and pattern, forebay and tailrace water surface elevation, incoming TDG, and water temperature. The licensee would also work with project engineers, technicians, and operators to identify potential opportunities for operational optimization. Prior to enacting any new operational scenarios, the licensee would seek Ecology's review and approval on the changes.

10. If the implementation and optimization of the Spill Playbook fails to achieve compliance with TDG standards after updating the TDG production dynamics model, the licensee would revisit the model assumptions and work with Ecology and the Aquatic Settlement Working Group (ASWG)³ to refine them. The licensee would use field data to support an empirical evaluation of the model assumptions to improve its accuracy and performance.

³ The ASWG consists of at least one representative from each of the following agencies and organizations: the U.S. Fish and Wildlife Service, Ecology, DFW, Colville, Yakama Nation, and the licensee. The BLM has elected to waive regular participation, but it receives all documents and reserves the right to participate as desired. The BIA participates intermittently as an observer, but it receives all documents and reserves the right to participated as desired.

11. Pursuant to the WQC, the licensee would develop a TDG Reduction Alternative Analysis within one year of the approval of the plan. The objective of the analysis would be to evaluate any structural or operational alternatives that may improve TDG in the project area and to assess any associated risks. The analysis would also evaluate the economic and environmental costs of implementing each alternative. The licensee would consult with members of the ASWG throughout the analyses. Upon completion, the licensee would provide its results to the ASWG, other Mid-Columbia River Public Utility Districts, and the Corps.

12. Finally, the licensee's plan includes an implementation schedule for the aforementioned actions over the course of ten years. The schedule includes timeframes for actions dependent on the results of other analyses to be conducted under the plan. Under the plan, the licensee would prepare a draft annual report for Ecology approval. This water quality attainment report, as approved by Ecology would be filed with the Commission as part of the licensee's Gas Abatement Plan annual report, due February 28 annually.

CONSULTATION

13. Via electronic communication dated August 27 and 28, 2013, the licensee provided its draft plan to the BIA, Colville, DFW, NMFS, Yakama Nation, BLM, and Ecology for review and comment. Ecology, on September 30, 2013, requested more detail in the description of biological monitoring at the project. At an October 9, 2013 ASWG meeting, Ecology asked the licensee to add a list of acronyms and a description of regulatory criteria at the dam immediately upstream of the project. Ecology also modified its initial request, and instead recommended that the biological monitoring section be removed from the plan, as its connection to the plan's mission was unclear. The licensee added the requested information. In regard to the requested omission, the licensee instead added a paragraph explaining how the biological monitoring data may prove useful to regulators. After addressing Ecology's comments, the licensee re-distributed the draft plan to the resource agencies and tribes on October 2, 2013. Ecology, the resource agencies, and the tribes approved the plan at a meeting held on October 11, 2013.

DISCUSSION AND CONCLUSION

14. The plan outlines a practical compliance schedule for lowering TDG saturation below the 110 percent state standard, as described in condition 6.7(2)(e) of Ecology's WQC. The licensee's plan includes the ongoing adaptation of its Spill Playbook and identifies the key project operating factors that influence TDG levels. The plan also includes measures to monitor for and collect potentially beneficial data on gas bubble trauma in the project area, and contains an outline for economic analyses. The licensee additionally intends to conduct ongoing consultation with the resource agencies and

tribes regarding the success of individual components of its plan, which should ensure that the licensee maximizes its compliance with TDG standards.

15. The licensee's water quality attainment plan, as proposed, fulfills the requirements of Article 401 of the Wells Hydroelectric Project license, and should be approved.

The Director orders:

(A) Public Utility District No. 1 of Douglas County, Washington's water quality attainment plan, filed October 21, 2013 pursuant to Article 401 of the Wells Hydroelectric Project No. 2149 is approved.

(B) This order constitutes final agency action. Any party may file a request for rehearing of this order within 30 days from the date of its issuance, as provided in section 313(a) of the Federal Power Act, 16 U.S.C. § 8251 (2012), and the Federal Energy Regulatory Commission's regulations at 18 CFR § 385.713 (2013). The filing of a request for hearing does not operate as a stay of the effective date of this order, or of any other date specified in this order. The licensee's failure to file a request for rehearing shall constitute acceptance of this order.

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and Compliance