

UNITED STATES OF AMERICA 99 FERC ¶ 62,082
FEDERAL ENERGY REGULATORY COMMISSION

Wisconsin Public Service
Corporation

Project Nos. 2525-048,
2595-062, 2522-070, 2546-066
2560-044, and 2581-036

ORDER AMENDING WATER QUALITY MONITORING PLANS¹

(Issued April 30, 2002)

Wisconsin Public Service Corporation (licensee) filed on February 28, 2002, proposed changes to its approved water quality monitoring plans for the Caldron Falls Project (FERC No. 2525), High Falls Project (FERC No. 2595), Johnson Falls Project (FERC No. 2522), Sandstone Rapids Project (FERC No. 2546), Potato Rapids Project (FERC No. 2560), and the Peshtigo Project (FERC No. 2581).² The projects are located on the Peshtigo River in Marinette and Oconto Counties, Wisconsin.

LICENSEE'S PROPOSED CHANGES

The licensee will collect pH, dissolved oxygen (DO) concentrations, and water temperature at one hour intervals continuously for the months of June, July, August, and September using Hydrolab Datasonde Equipment or equivalent. All instrumentation will be cleaned, downloaded, and calibrated according to manufacturer's specifications every 7-10 days during the monitoring period. A post-monitoring calibration will be conducted to determine the calibration drift due to such factors as human error or bio-fouling. Calibration information will be recorded in a maintenance log for each piece of equipment. Raw data will be adjusted assuming a linear degradation of calibration based upon a post calibration of the equipment.

¹ Article 406 of the High Falls Project, Potato Rapids Project, and Peshtigo Project; article 407 of the Johnson Falls Project; article 408 of the Sandstone Rapids Project; and article 409 of the Caldron Falls Project.

² Order Modifying and Approving Water Quality Monitoring Plans issued September 14, 1998 at 84 FERC ¶62,224 and as amended May 24, 2000 at 91 FERC ¶ 62,132.

When data is downloaded from the equipment, it will be screened for periods of non-compliance with the standards. If periods of non-compliance are identified, the Wisconsin Department of Natural Resources (WDNR) will be notified within five working days. The results will be supplied to the WDNR and the U.S. Fish and Wildlife Service (USFWS). The agencies will be given 30 days for review of the results of the study. The monitoring results, agency comments, and responses to agency comments will be provided to the Commission by February 28th of the year following the year in which monitoring occurred. Specifics for each project are identified below:

A. Caldron Falls Project (FERC No. 2525)

The licensee will ensure flow releases from the project, as measured immediately downstream from the dam, maintain the following standards, except when natural conditions prohibit attainment of the standards: (1) DO concentrations shall not be less than 5.0 milligrams per liter (mg/L) (minus the precision of the monitoring instrument - 0.2 mg/L for Hydrolab Brand Equipment) for more than 24 hours per year; (2) water temperature shall not exceed 89 degrees Fahrenheit; and (3) the pH shall be within the range of 6.0 to 9.0, with no change greater than 0.5 units outside the estimated natural seasonal maximum and minimum. Natural conditions include inflows to the project less than the 95 percent exceedance flow.

Upstream and downstream monitoring will occur on a five-year basis. The upstream monitor is located on the upstream face of the dam and the downstream monitor is located approximately 600 feet downstream of the tailrace. The monitoring is scheduled to occur in 2006 and every five years thereafter for the term of the license.

Through monitoring conducted in 1999, 2000, and 2001, it was determined that it is necessary to increase the flow through the sluice gate during periods of the summer. Past accurate data from 2000 and 2001 indicate all periods of low DO levels occur between July 15 and September 1. Therefore, annually during the period July 15 through September 1, the licensee will double the flow out of the sluice gate to 56 cfs. The continued need for enhanced sluice gate flow will be discussed on an annual basis with the WDNR and USFWS.

In the summer of 2001, the licensee installed four agitating devices in front of the trash racks to provide mixing between the epilimnion and hypolimnion. Profile data indicated the best depth for installation is 11 feet from the top of the trashracks with the flow direction downward. The licensee will annually agitate the water in front of the trashracks from June 1 through September 1 to attempt to mitigate any low DO

conditions that may occur in the tailrace. The continued need for agitation will be discussed on an annual basis with the WDNR and USFWS.

B. High Falls Project (FERC No. 2595)

The licensee will ensure flow releases from the project, as measured immediately downstream from the dam, maintain the following standards, except when natural conditions prohibit attainment of the standards: (1) DO concentrations shall not be less than 5.0 milligrams per liter (mg/L) (minus the precision of the monitoring instrument - 0.2 mg/L for Hydrolab Brand Equipment) for more than 24 hours per year; (2) water temperature shall not exceed 89 degrees Fahrenheit; and (3) the pH shall be within the range of 6.0 to 9.0, with no change greater than 0.5 units outside the estimated natural seasonal maximum and minimum. Natural conditions include inflows to the project less than the 95 percent exceedance flow.

Upstream monitoring will occur on a five-year basis and is conducted with the same equipment utilized for the downstream monitoring of the Caldron Falls Project (approximately 600 feet downstream of the tailrace). The upstream (or downstream of Caldron Falls) monitoring is scheduled to occur in 2006 and every five years thereafter for the term of the license. The downstream monitoring equipment shall be located on the concrete support below the High Falls Road Bridge near the middle of the river. Monitoring will be conducted annually. The need for future monitoring will be discussed annually with the WDNR and USFWS. Should the annual monitoring be unnecessary because the discharges meet the required standards, the monitoring schedule will be modified to follow a five year protocol, which will be synchronized with the five-year monitoring schedule for the rest of the projects.

Through monitoring conducted in 1999, 2000, and 2001, it was determined that diurnal fluctuations of DO levels occur during certain periods of the summer. A reservoir draw down was initiated in November of 2001 to attempt to minimize the effects of the Eurasian milfoil colonies upon DO levels. In the summer of 2001, a real-time DO device was installed at the bridge below the tailrace to allow for constant monitoring of DO levels in the tailrace. The output of the device is monitored by the control desk on a 24-hour basis throughout the summer for compliance. If levels below standards are identified, corrective actions to include passing water through a spillway gate are initiated.

C. Johnson Falls Project (FERC No. 2522)

The licensee will ensure flow releases from the project, as measured immediately downstream from the dam, maintain the following standards, except when natural conditions prohibit attainment of the standards: (1) DO concentrations shall not be less than 6.0 milligrams per liter (mg/L) at any time or 7.0 mg/L during the spawning season (minus the precision of the monitoring instrument -0.2 mg/L for Hydrolab Brand Equipment) for more than 24 hours per year; (2) water temperature shall not be altered from natural background to the extent that trout populations are adversely affected; and (3) the pH shall be within the range of 6.0 to 9.0, with no change greater than 0.5 units outside the estimated natural seasonal maximum and minimum. Natural conditions include inflows to the project less than the 95 percent exceedance flow.

Upstream and downstream monitoring occurs on a five-year basis. The upstream monitoring is conducted with the same equipment as the downstream monitor at High Falls and the downstream monitor at Johnson Falls is located in the tailrace. Upstream monitoring will not be conducted in the month of October. The monitoring is scheduled to occur in 2006 and every five years thereafter for the term of the license.

Correction of problems will be handled on a case-by-case basis through consultation with the WDNR and USFWS.

D. Sandstone Rapids Project (FERC No. 2546)

The licensee will ensure flow releases from the project, as measured immediately downstream from the dam, maintain the following standards, except when natural conditions prohibit attainment of the standards: (1) DO concentrations shall not be less than 5.0 milligrams per liter (mg/L) (minus the precision of the monitoring instrument - 0.2 mg/L for Hydrolab Brand Equipment) for more than 24 hours per year; (2) water temperature shall not exceed 89 degrees Fahrenheit; and (3) the pH shall be within the range of 6.0 to 9.0, with no change greater than 0.5 units outside the estimated natural seasonal maximum and minimum. Natural conditions include inflows to the project less than the 95 percent exceedance flow.

Upstream and downstream monitoring occurs on a five-year basis. The upstream monitoring is conducted with the same equipment as the downstream monitor at Johnson Falls and the downstream monitor at Sandstone Rapids is located in the tailrace. The monitoring is scheduled to occur in 2006 and every five years thereafter for the term of the license.

Correction of problems will be handled on a case-by-case basis through consultation with the WDNR and USFWS.

E. Potato Rapids Project (FERC No. 2560)

The licensee will ensure flow releases from the project, as measured immediately downstream from the dam, maintain the following standards, except when natural conditions prohibit attainment of the standards: (1) DO concentrations shall not be less than 5.0 milligrams per liter (mg/L) (minus the precision of the monitoring instrument - 0.2 mg/L for Hydrolab Brand Equipment) for more than 24 hours per year; (2) water temperature shall not exceed 89 degrees Fahrenheit; and (3) the pH shall be within the range of 6.0 to 9.0, with no change greater than 0.5 units outside the estimated natural seasonal maximum and minimum. Natural conditions include inflows to the project less than the 95 percent exceedance flow.

Upstream and downstream monitoring occurs on a five-year basis. The upstream monitoring is located on the upstream face near the powerhouse and the downstream monitor is located in the tailrace below the dam. The monitoring is scheduled to occur in 2006 and every five years thereafter for the term of the license.

Correction of problems will be handled on a case-by-case basis through consultation with the WDNR and USFWS.

F. Peshtigo Project (FERC No. 2581)

The licensee will ensure flow releases from the project, as measured immediately downstream from the dam, maintain the following standards, except when natural conditions prohibit attainment of the standards: (1) DO concentrations shall not be less than 5.0 milligrams per liter (mg/L) (minus the precision of the monitoring instrument - 0.2 mg/L for Hydrolab Brand Equipment) for more than 24 hours per year; (2) water temperature shall not exceed 89 degrees Fahrenheit; and (3) the pH shall be within the range of 6.0 to 9.0, with no change greater than 0.5 units outside the estimated natural seasonal maximum and minimum. Natural conditions include inflows to the project less than the 95 percent exceedance flow.

Upstream and downstream monitoring occurs on a five-year basis. The upstream and downstream monitoring occurs on a five-year basis. The upstream monitoring is conducted with the same equipment as the downstream monitor at Potato Rapids and the

downstream monitor at Peshtigo Rapids is located in the tailrace. The monitoring is scheduled to occur in 2006 and every five years thereafter for the term of the license.

Correction of problems will be handled on a case-by-case basis through consultation with the WDNR and USFWS.

AGENCY COMMENTS

By letters dated January 25, 2002, the licensee requested comments from the USFWS and WNDR on its proposed amendments to the water quality monitoring plans for each of its six projects on the Peshtigo River. By letter dated February 20, 2002, the WDNR concurred with the licensee's proposed changes to the water quality monitoring plans. The USFWS did not provide any comments.

DISCUSSION AND CONCLUSIONS

During the summers of 1999, 2000, and 2001, water quality monitoring was conducted at the above listed projects. The licensee completed an in-depth analysis of water quality issues at the projects and determined that modifications were necessary to the current monitoring plans. The licensee's proposed amendment to its approved water quality monitoring plans, should be adequate to measure DO concentrations in the Peshtigo River and ensure compliance with state DO standards, and should, therefore, be approved.

The Director orders:

(A) The licensee's proposed amendment to its water quality monitoring plans for the Caldron Falls Project (FERC No. 2525), High Falls Project (FERC No. 2595), Johnson Falls Project (FERC No. 2522), Sandstone Rapids Project (FERC No. 2546), Potato Rapids Project (FERC No. 2560), and the Peshtigo Project (FERC No. 2581), filed on February 28, 2002, is approved.

(B) 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 CFR § 385.713.

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and Compliance