

91 FERC ¶ 62,132

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Wisconsin Public Service
Corporation

) Project Nos. 2525-030,
2595-041, 2522-049,
2560-025, and 2581-026

ORDER AMENDING WATER QUALITY MONITORING PLANS

(Issued May 24, 2000)

Wisconsin Public Service Corporation (licensee) filed on March 30, 2000, 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), Potato Rapids Project (FERC No. 2560), and the Peshtigo Project (FERC No. 2581).¹ The projects are located on the Peshtigo River in Marinette and Oconto Counties, Wisconsin.

LICENSEE'S PROPOSED CHANGES

For the Peshtigo River Projects, the licensee will improve monitoring equipment and implement refined calibration practices. The licensee will continue to use upgraded and new Hydrolab equipment for water quality data gathering. In addition, the licensee will supplement the use of continuous monitoring equipment with handheld monitor data gathering by hydro personnel. Hydro personnel will sample the monitoring location each day at two or three day intervals (corresponding to their scheduled work at the projects). The supplemental data will be gathered to identify drastic changes in dissolved oxygen (DO) levels that could occur during the seven to ten day Hydrolab placement periods.

The licensee proposes to conduct DO monitoring for two more years and implement activities annually to mitigate low DO levels based on calendar dates to be established by the monitoring that will take place over the next two years. Mitigation activities will be implemented during 2000 and 2001 when a downward trend of DO levels is observed during monitoring activities. The licensee will implement proposed mitigation measures when DO levels continually reach 5.5 mg/L for the Caldron Falls,

¹ Order Modifying and Approving Water Quality Monitoring Plans issued September 14, 1998 at 84 FERC ¶62,224.

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High Falls, Potato Rapids, and Peshtigo Projects and 6.5 mg/L for the Johnson Falls Project (DO standards are 5 mg/L and 6 mg/L respectively).

A. Caldron Falls

The licensee proposes to aerate the powerhouse intake to improve DO levels being passed from the reservoir into the turbines (the licensee will aerate at the Caldron Falls head gate into the access tunnel of the penstocks). This will be accomplished with two air compressors (one for each penstock) that are capable of injecting 14 cubic feet per minute of air. Piping will deliver the air to a depth of 27 feet or three feet from the bottom of the penstock and approximately three feet within the opening of the penstock. Existing air compressor equipment that is used in the winter to prevent dam icing will be modified to allow aeration operation beginning June 15, 2000. The licensee also proposes to install a second tailwater area monitor at the Parkway Road Bridge. Upon identification of continuing low DO levels (if they occur after the initiation of aeration), the licensee will release water from the Caldron Falls dam until an alternative solution can be implemented.

B. High Falls

The licensee proposes to relocate the tailwater monitor to the High Falls Road Bridge and implement a monitoring program to assess the potential low DO problems and causes in the reservoir. The licensee will investigate and develop a turbine venting procedure by June 15, 2000, to satisfy identified DO deficiencies. As part of a turbine replacement project, the licensee proposes to evaluate, design, and develop costs for an aeration turbine by the end of the year 2000. Based upon the monitoring results and engineering studies, the licensee will determine the effectiveness and feasibility of the new aeration turbine installation. Upon identification of continuing low DO levels (if they occur after the initiation of turbine venting), the licensee proposes to pass water from the High Falls dam until an alternative solution can be implemented.

C. Johnson Falls

The licensee will investigate and develop a turbine venting procedure by June 15, 2000, to satisfy identified DO deficiencies. Upon identification of continuing low DO levels (if they occur after the initiation of turbine venting), the licensee proposes to pass water from the Johnson Falls dam until an alternative solution can be implemented.

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D. Potato Rapids

The licensee will investigate and develop a turbine venting procedure by June 15, 2000, to satisfy identified DO deficiencies. Upon identification of continuing low DO levels (if they occur after the initiation of turbine venting), the licensee proposes to monitor DO levels at the confluence of the powerhouse and spillway channels. If low DO levels exist at that location, the licensee will pass water from the Potato Rapids dam until an alternate solution can be implemented.

E. Peshtigo

The licensee will investigate and develop a turbine venting procedure by June 15, 2000, to satisfy identified DO deficiencies. Upon identification of continuing low DO levels (if they occur after the initiation of turbine venting), the licensee proposes to pass water from the Peshtigo dam until an alternative solution can be implemented.

AGENCY COMMENTS

By letters dated February 14, 2000, the licensee requested comments from the Wisconsin Department of Natural Resources (WDNR) and the U.S. Fish and Wildlife Service (USFWS). The USFWS, by letter dated March 7, 2000, stated that due to time, staff, and funding constraints associated with its hydroelectric relicensing workload, it would not be able to review the licensee's plan.

The WDNR, by letter dated February 22, 2000, provided comments on the licensee's plans. The licensee incorporated most of the WDNR's comments into its plan, except for the WDNR's recommendation that the licensee use equipment which will allow for real-time retrieval of monitoring data.

DISCUSSION AND CONCLUSIONS

During the summer of 1999, water quality monitoring at the above listed projects revealed DO levels below state standards. The licensee completed an in-depth analysis of the identified DO deficiencies. From its review, the licensee determined that project modifications were necessary to ensure compliance with state standards for DO levels.

The proposed modifications include improving monitoring equipment and refining calibration practices. To supplement the continuous monitoring equipment, the licensee will have hydro personnel take hand-held DO readings every two to three days

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when they are on site. The licensee also proposes to have a process in place (i.e., turbine venting or releasing flows over the spillway) to maintain DO levels at or above state standards.

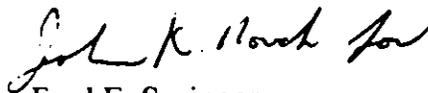
Regarding the WDNR's recommendation that the licensee install real-time measuring equipment, the licensee's proposal to continue to use its existing equipment and supplementing the readings with hand-held meter readings every 2 to 3 days should allow the licensee to closely monitor the DO situation at each project. If, in the future, this method proves inadequate, the Commission has reserved authority to require changes to the licensee's monitoring plan.

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), Potato Rapids Project (FERC No. 2560), and the Peshtigo Project (FERC No. 2581), filed on March 30, 2000, 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.



Fred E. Springer

Director

Division of Hydropower Administration
and Compliance