

87 FERC ¶ 62,281

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Wisconsin Public Service Corporation) Project Nos. 2525-021,
2595-027, 2522-038, 2546-043,
2560-014, and 2581-016

ORDER MODIFYING AND APPROVING WATER QUALITY MONITORING LOCATIONS

MAY 28 1999

Wisconsin Public Service Corporation (licensee) filed on April 7, 1999, its recommendations on the location of the water quality monitoring equipment required under the September 1998 orders modifying and approving 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). 1/ The projects are located on the Peshtigo River in Marinette and Oconto Counties, Wisconsin.

BACKGROUND

Ordering paragraph (B) of each order requires the licensee to determine the location of the water quality monitoring equipment in consultation with the Wisconsin Department of Natural Resources (WDNR). If the licensee and the WDNR cannot agree on a location for the monitoring, the licensee is to file its recommendations, along with WDNR comments, for Commission approval.

LICENSEE'S RECOMMENDATIONS

A. Caldron Falls

The licensee proposes to locate the upstream monitoring device in a location that will assure that any dissolved oxygen (DO) levels that are below the state standards are not due to the operation of the facility. The monitoring device will be attached to the dam structure itself.

The downstream monitoring device will be placed on the bed of the stream at a location that will determine the effectiveness of measures the licensee has implemented to increase the levels of DO in the tailwater. The licensee indicates it has been

1/ Caldron Falls (84 FERC ¶ 62,224), High Falls (84 FERC ¶ 62,222), Johnson Falls (84 FERC ¶ 62,223), Sandstone (84 FERC ¶ 62,228), Potato Rapids (84 FERC ¶ 62,229), and Peshtigo (84 FERC ¶ 62,225).

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implementing efforts to increase the DO content of the tailwater by redirecting water passed through the sluice gate directly into the tailrace. The location will be within 300 feet of the tailrace structure, immediately downstream of the dam.

B. High Falls

The downstream monitoring device at Caldron Falls will serve as the upstream monitoring device at High Falls. The downstream monitoring device will be placed near the middle of the river and will be attached to the concrete column supporting the bridge. The exact placement of the monitoring device will be influenced by safety, ease of access, and protection from vandalism and theft.

C. Johnson Falls

The downstream monitoring device at High Falls will serve as the upstream monitoring device at Johnson Falls. The location of the downstream monitoring device will remain the same as the location used for water quality monitoring during relicensing studies. The structure for retaining the monitoring device remains in place and does not require any modifications. The location is in the tailwater outfall and is attached to the powerhouse structure itself.

D. Sandstone Rapids

The downstream monitoring device at Johnson Falls will serve as the upstream monitoring device at Sandstone Rapids. The location of the downstream device will remain the same as the location used for the water quality monitoring during relicensing studies. The structure for retaining the monitoring device remains in place and does not require any modifications. The location is in the tailwater outfall and is attached to the powerhouse structure itself.

E. Potato Rapids

The location of the upstream monitoring device has been modified by moving the location approximately 100 feet to the north along the wingwall away from the powerhouse to address the concerns associated with the operation of different turbine units provided in the WDNR comments. The location of the downstream device will remain the same as the location used for water quality monitoring during relicensing studies. The structure for retaining the monitoring device remains in place and does not require any modifications. The location is in the tailwater outfall and is attached to the powerhouse structure itself.

F. Peshtigo

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The downstream monitoring device at Potato Rapids will serve as the upstream monitoring device at Peshtigo. The location of the downstream device will remain the same as the location used for water quality monitoring during relicensing studies. The structure for retaining the monitoring device remains in place and does not require any modifications. The location is in the tailwater outfall and is attached to the powerhouse structure itself.

AGENCY COMMENTS

By letters dated March 5, 1999, the licensee requested comments from the WDNR and the USFWS. The USFWS did not comment.

The WDNR, by letter dated March 29, 1999, provided comments on the licensee's plans. For the High Falls Project, Johnson Falls Project, Sandstone Rapids Project, and the Peshtigo Project, the WDNR stated the proposed locations may be acceptable but recommends selecting the exact locations with agency personnel during a site visit.

For the Caldron Falls Project, the WDNR indicates both the upstream and downstream locations are unacceptable. The WDNR recommends the upstream device be located upstream of the flowage in the vicinity of the County Highway C Bridge. The WDNR states the location the licensee is proposing near the intake structure will not provide accurate information on the water quality entering the project. As for the downstream device, the WDNR states the proposed location will not provide meaningful information on water quality below the project. The WDNR is concerned with the water quality in the pool immediately below the powerhouse. The WDNR states the location of the downstream device will not adequately represent the water quality in the pool.

For the Potato Rapids Project, the WDNR states the location of the upstream device is unacceptable. The WDNR indicates that, by placing the device at the northeast corner of the powerhouse, the licensee will not get a representative sample of the water quality above the project. With the operation of different turbine units at different times of the year, there will be varying flow patterns coming into the powerhouse. The WDNR recommends a location in the vicinity of the County Highway E Bridge located above the impoundment. The WDNR states the exact locations of both the upstream and downstream water quality monitoring devices should be determined at an onsite meeting with representatives of the agencies.

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DISCUSSION AND CONCLUSIONS

The licensee has attempted to resolve the location of the water quality monitoring equipment at each project on three occasions: March 23, 1998; November 12, 1998 (with Commission staff present); and March 5, 1999. The locations proposed by the licensee for the High Falls, Johnson Falls, Sandstone Rapids, Peshtigo, and Potato Rapids Projects were used for the relicensing water quality studies. These sites adequately monitored water quality in the past and have identified past water quality problems. Given the structures are still in place to house the monitoring equipment, we see no reason why these locations should not be used. Additional consultation to determine the exact location, as recommended by the WDNR, is therefore not necessary.

As for the upstream monitoring locations for the Potato Rapids Project and the Caldron Falls Project, there is no need for the licensee to locate the gages upstream of the impoundment. The purpose of the water quality monitoring is to measure water quality coming into the project. By placing the gages at each of the two dams, monitoring will indicate the quality of the water entering the project intakes. This would provide more useful information than data from water entering the impoundment.

The last remaining issue involves the location of the downstream monitoring device at the Caldron Falls Project. The licensee acknowledges water low in DO leaks through the wicket gates and into the downstream pool. This leakage water needs time to mix with water released into the tailrace through the sluice gate to increase the DO concentration. The licensee indicates the monitoring device at the proposed location will determine the effectiveness of the releasing water from the sluice gates to increase the DO concentration in the tailwater.

Considering the pool below the Caldron Falls dam is one of few deep areas in the stretch of river between the dam and the impoundment of the High Falls Project, fish would likely congregate in this area. It is important to ensure that the water quality in this pool meets state water quality standards to support those fish in that area. The licensee should therefore be required to locate its monitoring device within this pool area instead of some 300 feet downstream from the tailrace structure as proposed. A possible location would be to attach the monitor device along the concrete walkway over the discharge flumes or out in the middle part of the pool. Provisions are in place through the licensee's approved water quality monitoring plan to make necessary changes to project structures or operation should the water quality monitoring determine the DO concentrations in this area do not meet the state standards.

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Once the monitoring devices are installed, the licensee should be required to file a report describing the exact location of the equipment at each project and when it was installed and operational.

The licensee's proposed water quality monitoring locations, with the above modification, should be adequate to measure DO concentrations in the Peshtigo River, and should, therefore, be approved.

The Director orders:

(A) The licensee's plans for placing the water quality monitoring devices at 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 April 7, 1999, as modified by paragraphs (B) and (C) below, is approved.

(B) The licensee shall locate the downstream monitoring equipment at the Caldron Falls Project within the pool at the base of the dam either along the concrete walkway over the discharge flumes of the project or out in the middle part of the pool.

(C) Within 30 days of installing the monitoring devices at each project, the licensee shall file, with the Commission and the resource agencies, a report describing the exact location of the equipment at each project and when it was installed and became operational.

(D) 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.


J. Mark Robinson
Director

Division of Licensing and Compliance