76 FERC ¶ 62,231

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Wisconsin Electric Power Co. ) Project No. 2486-010

ORDER MODIFYING AND APPROVING WATER QUALITY MONITORING PLAN

SEP 25 1996

Wisconsin Electric Power Company (licensee) filed, on June 13, 1996, its water quality monitoring plan required under article 418 of the license for the Pine Hydroelectric Project (FERC No. 2486). 1/ The project is located on the Pine River, in Florence County, Wisconsin, about 12 miles from the Michigan border.

BACKGROUND

A. Project Description

The project consists of: (1) a 628-foot long structure comprising (a) a 146-foot-long dam, (b) a 358-foot long earth dike containing a concrete corewall, (c) a 124-foot concrete spillway section with seven Taintor gates, and (d) a concrete gravity non-overflow section; (2) a reservoir with a surface area of 180 acres and a total storage volume of 1,540 acre-feet; (3) a reinforced concrete canal intake structure equipped with slots for stop logs; (4) a 1,530-foot-long canal that directs water to the powerhouse; (5) penstock headworks; (6) two 9-foot-diameter, 340-foot-long steel penstocks; (7) a reinforced concrete and brick-and-steel 50.6-foot-long by 58.4-foot-wide frame powerhouse with two vertical shaft Francis turbines with a combined hydraulic capacity of 640 cubic feet per second (cfs) and a total plant rating of 3,600 kW. A 0.4-mile-long segment of the original river channel is bypassed by the project.

B. Article Requirements

Article 418 requires the licensee to file a plan, for Commission approval, to monitor dissolved oxygen (DO), pH (a measure of acidity), and water temperature of the Pine River downstream of the project every five years. The purpose of the monitoring plan is to ensure that streamflows below the project, as measured immediately downstream of the project tailrace, maintain a DO content of at least 5.0 milligrams per liter (mg/L), a pH of between 6.0 and 9.0 with no change greater than 0.5 units outside the estimated seasonal maximum and minimum, and a temperature not to exceed 89 degrees Fahrenheit. The licensee is to prepare the plan after consultation with the Wisconsin

1/ Issued December 19, 1995 at 73 FERC ¶ 61,346.

Department of Natural Resources (WDNR) and the U.S. Fish and Wildlife Service (FWS).

LICENSEE'S PROPOSAL

A. Monitoring Location and Equipment

Continuous monitoring of water temperature, DO, and pH, will occur at one location in the plant's tailrace along the south bank, approximately 50 feet downstream of the powerhouse and approximately 100 feet downstream of the point where the bypass river channel joins the tailrace. Continuous recording instruments will be used.

The instruments will be cleaned and calibrated weekly. The DO measurements will be air calibrated per manufacturer's specification; pH will be checked against laboratory prepared buffer solutions; and temperature will be checked with a thermometer. The instruments would be deployed for seven to ten days maximum. The calibrations will be rechecked upon retrieval. The licensee will seek to achieve a goal of 70 percent accuracy (plus or minus 1.0 mg/L) for DO for each unattended monitoring period.

In addition, late winter (February to early-March) vertical profile measurements of water temperature, DO concentration, and pH will be made through the ice on a single occasion to determine if the reservoir is developing serious low DO conditions that could impact downstream waters.

B. Monitoring Schedule

Initial license-required monitoring will commence no later than May 1, 1997, spring weather and runoff conditions permitting, and will terminate on or about October 31, 1997. This schedule will be repeated once every five years for the duration of the license.

C. Data Reporting

As recorded data are downloaded from the instrument to the computer, the data will be screened for compliance by comparing the actual data with the water quality standards for temperature, DO, and pH. Assuming no exceedances are noted, the data will be stored on computer, backed up with hardcopy printouts. If requested by the agencies, the licensee would make any data available for review within ten working days.

Data summaries consisting of data plots or tabularized data for the six month continuous monitoring period and the late winter vertical profile measurements will be prepared and filed

with the Commission and the agencies no later than November 30 of each year following data collection (once every five years). The raw data could be placed on diskette and shared with the agencies if so desired.

AGENCY COMMENTS

The FWS, by letter dated May 16, 1996, and the WDNR, by letter dated May 22, 1996, each concurs with the licensee's final water quality management plan.

DISCUSSION AND CONCLUSIONS

Under its new license, the licensee will be changing the project's mode of operation from peaking (retaining impoundment inflows for releasing to generate power at high-demand periods) to run-of-river (inflows equaling outflows). A water quality monitoring plan was included in the project license to ensure that the change in project operations from peaking to run-of-river will not lead to a drop below the required standards.

In its plan, the licensee indicates that, assuming no exceedances of the standards are noted, the data would be stored. However, the licensee made no provisions should any deficiencies in the water quality standards be observed. The licensee should be required to report any such incidents when recorded DO concentrations fall below 5.0 mg/L, a pH value does not fall between 6.0 and 9.0, or when the water temperature rises above 89 degrees Fahrenheit.

If the DO level, pH, or water temperature, as measured by the approved monitoring system, falls below the requirements of article 418, the licensee should file a report with the Commission within 30 days of the date that the data becomes available regarding the incident. The report should, to the extent possible, identify the cause, severity, and duration of the incident, and any observed or reported adverse environmental impacts resulting from the incident. The report should also include: 1) operational data necessary to determine compliance with article 418; 2) a description of any corrective measures implemented at the time of occurrence and the measures implemented or proposed to ensure that similar incidents do not recur; and 3) comments or correspondence, if any, received from the resource agencies regarding the incident. Based on the report and the Commission's evaluation of the incident, the Commission should reserve the right to require modifications to project facilities and operations to ensure future compliance.

The licensee's water quality monitoring plan, with the above modification, should be adequate to monitor the requirements of article 418 and, should, therefore, be approved.

The Director orders:

(A) The licensee's water quality monitoring plan under article 418 for the Pine Hydroelectric Project (FERC No. 2486), filed on June 13, 1996, as modified by paragraph (B) below, is approved.

(B) If the DO level, pH, or water temperature, as measured by the approved monitoring system, falls below the requirements of article 418, the licensee shall file a report with the Commission within 30 days of the date that the data becomes available regarding the incident. The report shall, to the extent possible, identify the cause, severity, and duration of the incident, and any observed or reported adverse environmental impacts resulting from the incident. The report shall also include: 1) operational data necessary to determine compliance with article 418; 2) a description of any corrective measures implemented at the time of occurrence and the measures implemented or proposed to ensure that similar incidents do not recur; and 3) comments or correspondence, if any, received from the resource agencies regarding the incident. Based on the report and the Commission's evaluation of the incident, the Commission reserves the right to require modifications to project facilities and operations to ensure future compliance.

(C) Unless otherwise directed in this order, the licensee shall file an original and seven copies of any filing required by this order with:

The Secretary
Federal Energy Regulatory Commission
Mail Code: DPCA, HL-21.1
888 First Street, N.E.
Washington, D.C. 20426

In addition, the licensee shall serve copies of these filings on any entity specified in this order to be consulted on matters related to these filings. Proof of service on these entities shall accompany the filings with the Commission.

(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 Project
Compliance and Administration