



State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

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November 21, 2002

Ms. Magalie R. Salas, Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, D.C. 20426

Subject: Pine Hydroelectric Project (FERC No. 2486-010) Article 418 - Water Quality
Monitoring Report

Dear Ms. Salas:

Regarding this subject, I have consulted with Mr. David Michaud of WE Energies on this report. Mr. Michaud assured me that the omission of pH from the data collection this past summer was not intentional. I am satisfied with the results of the grab samples collected, which were analyzed for pH.

Thank you for the opportunity to clarify this issue.

Sincerely,

Thomas G. Meronek
Fisheries Biologist

Cc: Ms. Janet Smith, USFWS
Mr. David Michaud, WE Energies
Mr. William Rauscher WE Energies



November 15, 2002

Ms. Magalie R. Salas, Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, D.C. 20426

**RE: Pine Hydroelectric Project - FERC No. 2486-010
Article 418 - Water Quality Monitoring Report**

Dear Ms.Salas:

Wisconsin Electric is hereby filing one original and eight additional copies of the results of the water quality monitoring conducted at the Pine Project during May, June, July, August, September, and October, 2002. This filing also includes the results of the late-winter vertical profile measurements conducted in the Plant's impoundment.

The Commission issued a new license on December 19, 1995 for the above project and by order dated September 25, 1996 approved and modified Wisconsin Electric's water quality monitoring plan. The monitoring plan assures that the Pine Plant's discharge meets Wisconsin's water quality standards for temperature, dissolved oxygen (DO) and pH. The applicable standards are as follows:

| | |
|---------------------|------------------------|
| Maximum Temperature | 89°F (31.7°C); |
| DO | 5.0 mg/l at all times; |
| pH | between 6.0 and 9.0. |

The attached tables and supporting data (on diskette) document 100% compliance with these standards. However, it should be noted that, due to an error made earlier this year when the instruments were being made ready for use during this year's monitoring work, the pH function on our Datasonde instruments was inadvertently not activated. As a result, the instruments did not record pH continuously. Since we were simultaneously monitoring at eight different locations with 11 different Datasonde instruments during 2002, and none of the other stations required continuous monitoring for pH, it is perhaps more understandable how this oversight occurred and was allowed to continue throughout the entire monitoring period.

As it turns out, as part of our QA/QC program, our staff took water quality-related measurements during each Datasonde change-out that occurred during this monitoring season at the Pine monitoring location. pH was among the parameters measured during these change-out events. These pH measurements are provided in the attached Table. Also attached to this filing are the tables summarizing the results of our continuous monitoring work conducted in 1997. Based on the 1997 monitoring data, it is very apparent that pH at the Pine monitoring location varies slightly from month to month. The "grab" measurements collected this past year match up extremely closely with measurements made in 1997 during the same months.

We consulted with Mr. Thomas Meronek of Wisconsin DNR on November 12, 2002 regarding our error in not collecting continuous pH measurements. Pending his review of the 1997 and 2002 data for pH, he has proposed writing a letter to your office wherein he will state his agency's acceptance of the grab sample measurements as meeting the intent of the Water Quality Monitoring Plan for this past year and that his agency does not intend to require additional pH sampling during 2003 to "make up" for the missed data.

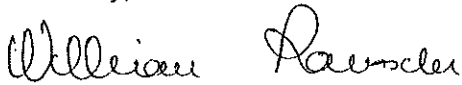
On a positive note, it should be noted that data recovery from our monitoring instruments for temperature and D.O. was 100 % for the entire six month period

A diskette containing the raw data and accompanying explanation sheet is submitted to Mr. Thomas Meronek, for the Wisconsin DNR's use.

Enclosed is a proof of service to the agencies listed on the copy list.

Please call me at (906) 779-2547 if you have questions regarding this filing.

Sincerely,



William Rauscher, Manager
Hydroelectric Operations Division



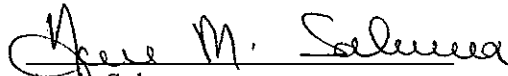
cc: ✓ Mr. Thomas Meronek, WDNR (with diskette)
Ms. Janet Smith, USFWS-Green Bay

F:\WINUSER\WINWORD\PINEWQ.DOC

Certificate of Service

I hereby certify that I have this day served the foregoing document upon all entities specified in the order to issue license to be consulted on matters related to the Commission filing. Service was done pursuant to Rule 2010 of FERC's Rules of Practice and Procedure 18 CFR, Section 385.2010

Dated this day Friday, November 15, 2002

A handwritten signature in cursive script that reads "Annie M. Salmona". The signature is written in black ink and is positioned above a horizontal line.

Annie Salmona
Hydro Licensing
We Energies

Annie Salmona
We Energies
333 W. Everett Street
Milwaukee, WI 53203
(414) 221-4151

We Energies 2002 Pine Hydro Data Submittal

The diskette labeled We Energies - Pine 2002 Hydro Data contains the following files.

Temperature and Dissolved Oxygen Monitoring Station.

| <u>Station</u> | <u>File Name</u> |
|----------------|--------------------------|
| Pine Tailrace | Pine2002TailraceData.xls |

The data is entered in the following order and separated by spaces:

| | |
|-------------------------------|---------------|
| Date | mm/dd/yy |
| Hour | 0-2300 |
| Temperature | 00.0 Degree C |
| Dissolved Oxygen % Saturation | 000.0 Percent |
| Dissolved Oxygen | 00.0 mg/l |

Pine2002HydroDataSummary.xls

Contains the monthly mean, maximum and minimum values for the temperature and dissolved oxygen data and a table showing the result of a pH sample collected at the time of sonde change out.

The data and summary files were saved as Excel 97 spreadsheets. The same information listed here can also be found in a Microsoft Word file called Pine2002Readme.Doc on the diskette.

WE Energies
Pine Hydro Plant - 2002 Tailrace Data Summary

Pine Tailrace - 2002 Data Summary

| Month | OBS | Temperature (Degrees C) | | | Dissolved Oxygen | | | DO % Saturation | | |
|--------|-----|---------------------------|------|------|------------------|------|-----|-----------------|-------|------|
| | | Mean | Max | Min | Mean | Max | Min | Mean | Max | Min |
| May | 744 | 10.7 | 20.3 | 6.0 | 10.5 | 11.9 | 8.2 | 93.5 | 103.1 | 84.2 |
| June | 720 | 18.9 | 25.2 | 13.9 | 8.1 | 9.2 | 6.6 | 88.4 | 94.7 | 78.4 |
| July | 744 | 24.1 | 27.9 | 21.3 | 6.9 | 7.5 | 5.9 | 83.0 | 91.7 | 70.8 |
| August | 744 | 21.1 | 24.6 | 18.5 | 7.0 | 8.2 | 5.6 | 79.1 | 88.2 | 62.6 |
| Sept | 720 | 17.2 | 22.7 | 10.5 | 7.8 | 9.7 | 5.6 | 79.8 | 87.1 | 59.1 |
| Oct | 744 | 6.8 | 14.2 | 1.9 | 10.9 | 12.7 | 8.8 | 89.0 | 93.1 | 84.5 |

100% Data Recovery

Pine Tailrace - pH Data

| Date | Time | pH |
|----------|------|-----|
| 4/29/02 | 1745 | 7.6 |
| 5/14/02 | 1605 | 7.7 |
| 5/22/02 | 1430 | 7.8 |
| 6/12/02 | 1350 | 7.9 |
| 6/27/02 | 955 | 7.6 |
| 7/10/02 | 1345 | 7.9 |
| 7/24/02 | 1230 | 8.0 |
| 8/7/02 | 1155 | 8.1 |
| 8/21/02 | 1215 | 8.0 |
| 9/4/02 | 1150 | 8.1 |
| 9/16/02 | 1455 | 8.2 |
| 10/2/02 | 1315 | 7.8 |
| 10/16/02 | 1530 | 7.9 |
| 11/1/02 | 700 | 7.5 |

pH collected at sonde changeout

Pine Tailrace Station 1997 Hydro Data Summary

(Included for comparison purposes)

Temperature (Degrees C)

| Month | Number of Observations | Mean | Maximum | Minimum |
|-------|------------------------|------|---------|---------|
| 5 | 723 | 10.5 | 15.5 | 5.4 |
| 6 | 719 | 19.5 | 24.8 | 15.2 |
| 7 | 739 | 21.2 | 25.3 | 16.5 |
| 8 | 744 | 19.1 | 24.1 | 15.1 |
| 9 | 720 | 15.6 | 18.3 | 13.2 |
| 10 | 744 | 8.7 | 15.6 | 1.8 |

Dissolved Oxygen (PPM)

| Month | Number of Observations | Mean | Maximum | Minimum |
|-------|------------------------|------|---------|---------|
| 5 | 723 | 10.4 | 12.4 | 8.4 |
| 6 | 719 | 7.9 | 9.2 | 6.8 |
| 7 | 739 | 7.3 | 8.6 | 6.2 |
| 8 | 744 | 7.5 | 9.2 | 6.4 |
| 9 | 720 | 9.3 | 10.0 | 8.3 |
| 10 | 744 | 10.5 | 12.9 | 8.1 |

Dissolved Oxygen (% Saturation)

| Month | Number of Observations | Mean | Maximum | Minimum |
|-------|------------------------|------|---------|---------|
| 5 | 723 | 95.9 | 102.8 | 86.0 |
| 6 | 719 | 88.1 | 96.5 | 75.7 |
| 7 | 739 | 84.0 | 95.3 | 71.7 |
| 8 | 744 | 82.1 | 94.9 | 70.5 |
| 9 | 720 | 94.9 | 99.4 | 82.7 |
| 10 | 744 | 90.0 | 97.7 | 77.5 |

pH (Standard Units)

| Month | Number of Observations | | Maximum | Minimum |
|-------|------------------------|--|---------|---------|
| 5 | 723 | | 8.1 | 7.4 |
| 6 | 719 | | 8.4 | 7.7 |
| 7 | 739 | | 8.4 | 7.6 |
| 8 | 744 | | 8.2 | 7.7 |
| 9 | 720 | | 8.2 | 7.7 |
| 10 | 744 | | 8.2 | 7.6 |

Wisconsin Electric Power Company
Pine 2002 Hydroelectric Project
Vertical Profile Data -

| 13 Feb 02 | | | | | |
|------------------------------------|-----------|-------------|-------------------|---------------|-----------|
| Approximate air temperature: -10 C | | | | | |
| Secci Depth: 6.0 ft., depth 33' | | | Time: 1530 | | |
| Depth | Temp. (C) | D.O. (mg/l) | D.O. % Saturation | Cond. (uS/cm) | pH (S.U.) |
| 0.0 | 0.4 | 13.8 | 98.3 | 238 | 8.4 |
| 0.5 | 0.3 | 13.8 | 96.8 | 237 | 8.4 |
| 1.0 | 0.2 | 13.8 | 97.4 | 238 | 8.4 |
| 1.5 | 0.2 | 13.8 | 97.0 | 238 | 8.4 |
| 2.0 | 0.2 | 13.7 | 96.8 | 235 | 8.5 |
| 2.5 | 0.2 | 13.8 | 97.1 | 240 | 8.5 |
| 3.0 | 0.2 | 13.7 | 96.5 | 236 | 8.5 |
| 3.5 | 0.2 | 13.7 | 96.5 | 235 | 8.5 |
| 4.0 | 0.2 | 13.7 | 96.4 | 243 | 8.5 |
| 4.5 | 0.2 | 13.6 | 95.7 | 240 | 8.5 |
| 5.0 | 0.2 | 13.5 | 95.5 | 230 | 8.6 |
| 5.5 | 0.2 | 13.5 | 95.6 | 234 | 8.6 |
| 6.0 | 0.2 | 13.5 | 95.4 | 241 | 8.6 |
| 6.5 | 0.2 | 13.5 | 94.6 | 241 | 8.6 |
| 7.0 | 0.3 | 13.3 | 93.4 | 232 | 8.6 |
| 7.5 | 0.5 | 12.8 | 91.3 | 247 | 8.6 |
| 8.0 | 0.7 | 12.6 | 87.5 | 235 | 8.5 |
| 8.5 | 1.5 | 8.3 | 60.1 | 247 | 8.4 |
| 9.0 | 2.3 | 3.6 | 24.8 | 247 | 8.4 |
| 9.5 | 2.5 | 2.0 | 14.1 | 252 | 8.3 |
| 9.9 | 2.8 | 1.2 | 8.6 | 271 | 8.2 |

Indicates opening of intake forebay (0-4 meters)