



Upper Peninsula Power Company

(a subsidiary of WPS Resources Corporation)

700 N. Adams Street

P.O. Box 19001

Green Bay, WI 54307-9001

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OFFICE OF THE
SECRETARY

JAN 27 P 3:02

RECEIVED
REGULATORY COMMISSION

FERC Project No. 1864

January 23, 2004

Ms. Magalie Roman Salas, Secretary
Federal Energy Regulatory Commission
Mail Code: DTCA, HL 21.3
888 First Street, N.E.
Washington, DC 20426

ORIGINAL

Dear Secretary Salas:

Bond Falls Hydroelectric Project Water Quality Monitoring Plan

As per the Order Approving Settlement and Issuing New License for the Bond Falls Hydroelectric Project (FERC Project No. 1864) dated October 3, 2002, Upper Peninsula Power Company (UPPCO) is enclosing a proposed Water Quality Monitoring Plan for approval, as described in Article 409 of the Order.

The Water Quality Monitoring Plan addresses the requirements to monitor temperature and dissolved oxygen at various locations within the Project. A copy of the Water Quality Monitoring Plan is attached. UPPCO has consulted with the Michigan Department of Environmental Quality (MDEQ) and members of the Bond Falls Implementation during the development of this plan. Comments were received from MDEQ, the Michigan Department of Natural Resources (MDNR), the United States Forest Service (USFS), and the Michigan Hydro Relicensing Coalition (MHRC). The Keweenaw Bay Chippewa Tribe, U.S. Fish and Wildlife Service (FWS), U.S. Department of the Interior, and Wisconsin Department of Natural Resources (WDNR) did not respond with comments. Documentation of Agency Consultation is included in Appendix B. A written response to agency comments and recommendations is also included in Appendix B.

Should you have any questions regarding this material, please feel free to contact Shawn Puzen at (920) 433-1094 or Mark Metcalf at (920) 433-1833. Thank you.

Sincerely,

David W. Harpole
Vice President - Energy Supply
for Wisconsin Public Service Corporation
Telephone: (920) 433-1264

vav

Enc.

cc: Mr. Dennis Maki, WPSC - WES (cover only)
Mr. Bob Edwards, UPPCO - UHGO (cover only)
Mr. Bob Meyers, UPPCO - UISH (cover only)
Mr. Greg Egtvedt, WPSC - A2 (cover only)
Mr. Shawn Puzen, WPSC - A2

Ms. Jessica Mistak, MDNR
Mr. Burr Fisher, USFWS
Mr. John Supnick, MDEQ
Ms. Joan Johaneck, WPSC - D2

Bond Falls Hydroelectric Project
Water Quality Monitoring Plan

FERC License No. 1864

Article 409

Upper Peninsula Power Company
January 2004

Water Quality Monitoring Plan

Bond Falls Hydroelectric Project - FERC License No. 1864

Article 409.

"Within six months after the issuance of a new license, the licensee shall file with the commission, for approval, a Water Quality Monitoring Plan, to document compliance with the water quality requirements of Article 408. The monitoring plan shall include a three-year monitoring period for dissolved oxygen and temperature, provisions for subsequent monitoring based on the results of the initial three-year monitoring period, and provisions for mitigation as described herein. All water quality monitoring shall be funded by the Mitigation Enhancement Fund described in Settlement Condition 7. If the fund is exhausted, the licensee shall fund the remaining activities as determined in the Water Quality Monitoring Plan."

1. Requirements - Temperature and Dissolved Oxygen

A. Continuous Temperature Monitoring - Requirements

Bond Falls Development and Victoria Powerhouse

Upper Peninsula Power Company (UPPCO) shall not discharge water from the license projects that are in excess of the following monthly average temperatures downstream from the Victoria Powerhouse and Bond Falls Dams.

Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sept	Oct	Nov	Dec
38°F	38	43	54	65	68	68	68	63	56	48	40

Bergland, Cisco, and Victoria Dams

Upper Peninsula Power Company (UPPCO) shall not discharge water from the license projects that are in excess of the following monthly average temperatures into the riverine reaches of the Ontonagon River downstream from Victoria Dam, downstream of the Bergland Dam, and downstream from the Cisco Dam.

Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sept	Oct	Nov	Dec
38°F	38	41	56	70	80	83	81	74	64	49	39

Temperature data will be collected hourly from June 1 through September 30 each monitoring year using portable, programmable recording instrumentation (see dissolved oxygen monitoring equipment).

B. Continuous Dissolved Oxygen Monitoring - Requirements

Bond Falls Development

UPPCO shall not cause the dissolved oxygen concentration measured in the Middle Branch of the Ontonagon River and in Roselawn Creek downstream of the Bond Falls Dams to be less than 7.0 mg/L.

Victoria Powerhouse

As stated in the license, UPPCO shall not cause the dissolved oxygen concentration in the West Branch of the Ontonagon River downstream of the Victoria Powerhouse to be less than 5.0 mg/L. UPPCO will strive to keep the dissolved oxygen concentration at or above 7.0 mg/L, and will notify the members of the Bond Falls Implementation Team and the Water Division of the MDEQ of any observed incidents below 7.0 mg/L.

Bergland, and Cisco Developments

UPPCO shall not cause the dissolved oxygen concentrations in the Cisco and West branches of the Ontonagon River downstream of the Cisco and Bergland Dams to be less than 5.0 mg/L. Dissolved oxygen will be monitored from June 1 to September 30 each monitoring year.

C. Continuous Monitoring - Reporting Deviations

In the event of deviations from the water quality standards, UPPCO shall notify the Water Division of the Michigan Department of Environmental Quality (MDEQ) and members of the Bond Falls Implementation Team within one working day of the observation of the incident, and take all reasonable steps necessary to ensure that compliance with the water quality limits are achieved, consistent with the water quality mitigation requirements of Article 409.

A report will be filed within 30 days of the observation of the incident with the Commission in the event that the project deviates from state water quality standards. The report shall identify, to the extent possible, the cause, severity and duration of the observed incident.

2. Temperature and Dissolved Oxygen Monitoring Locations and Schedule

To demonstrate compliance with the temperature and dissolved oxygen requirements, UPPCO proposes to monitor for temperature and dissolved oxygen during the summer months of each monitoring year. Past monitoring experience at other UPPCO hydroelectric facilities has demonstrated that the potential for deviations from temperature and dissolved oxygen requirements is increased during the summer months when atmospheric and water temperatures are at the highest.

The potential for deviations from water quality standards is minimal during the remainder of the year.

Temperature and dissolved oxygen data will be collected on an hourly basis (24 measurements per day, per location) at five sites within the Bond Falls Project. The locations are approximate. UPPCO will consult with MDEQ and the Bond Falls Implementation Team to determine exact stream locations in 2004 to assure optimal monitoring capability in areas where complete mixing has occurred and adequately represents the mixing zones prior to installing monitoring equipment. Monitoring locations should be easily accessible. Maps of the proposed locations are attached in Appendix A. UPPCO will monitor dissolved oxygen and temperature from June 1 to September 30, 2005, 2006, and 2007. UPPCO proposes the following monitoring locations for compliance with the requirements set forth in the project license:

- A. Downstream of the Cisco Dam, UPPCO will monitor temperature and dissolved oxygen in the Cisco Branch of the Ontonagon River, approximately 1 mile downstream of the Cisco Dam where a logging road crosses the Cisco Branch of the Ontonagon River (T45N, R41W, Sec. 28, SE ¼), or in a location that compliments United States Forest Service past data collection efforts.
- B. Downstream of Bond Falls Flowage, in Roselawn Creek, UPPCO will monitor temperature and dissolved oxygen where Bond Falls Road crosses Roselawn Creek (T46N, R39W, Sec. 11, SE ¼).
- C. Downstream of Bond Falls Flowage, UPPCO will monitor temperature and dissolved oxygen downstream of the Bond Falls Dam in the Middle Branch of the Ontonagon River (T46N, R39W, Sec. 1, SW ¼) at the walkway below the falls.
- D. Downstream of the Bergland Dam, UPPCO will monitor temperature and dissolved oxygen below the Bergland Dam in the West Branch of the Ontonagon River (T48N, R 42W, Sec. 3, NE ¼).
- E. Downstream of the Victoria Powerhouse, UPPCO will monitor temperature and dissolved oxygen below the Victoria Powerhouse in the West Branch of the Ontonagon River (T50N, R39W, Sec 29, SE ¼) downstream of the confluence of the discharge channel and the main river channel.

Article 408 states that UPPCO shall not cause dissolved oxygen levels below Victoria Dam to be less than 5 mg/L. Per the Bond Falls Settlement Agreement (dated June 2000, Section 3.1.2.3), UPPCO will operate the Victoria powerhouse in run-of-river mode from April 15 through June 15. After June 15, discharge from the Victoria Reservoir will occur from the Victoria Powerhouse. Due to this limited discharge period into the bypassed reach of the Ontonagon River below the Victoria

Dam, UPPCO proposes that the requirement to monitor below the Victoria Dam be removed.

3. Monitoring Equipment and Quality Assurance

Temperature and dissolved oxygen data will be collected using portable water quality monitoring equipment manufactured by Hydrolab, Inc., or equivalent. All monitoring equipment will be calibrated for dissolved oxygen prior to deployment according to the manufacturer instructions. The instruments shall be cleaned and calibrated at least once every two weeks during the annual monitoring period. At the time the monitoring equipment is removed from monitoring, a post deployment calibration will be performed per the manufacturer instructions to determine loss of calibration, with a goal of less than 1.0 mg/l drift or error at least 70% of the time over the monitoring season. UPPCO shall consult with the resource agencies to determine the cause and downstream extent of deviations from water quality standards and determine appropriate corrective action.

Per the equipment manufacturer, the monitoring equipment has a precision of 0.20 mg/L, excluding any bio-fouling or water quality problems. The data collected will be corrected for any loss of calibration greater than 0.20 mg/L. Raw data will be adjusted assuming a linear degradation of calibration based upon a post calibration of the equipment.

4. Dissolved Oxygen and Temperature Profile

At the Victoria and Bond Falls Developments, vertical temperature and dissolved oxygen profiles will be performed monthly from June 1 to September 30. Secchi disk depth measurements will be made at the same time as the profile. The profile will be performed from a safe and easily accessible location on the top of the dam(s). When secchi disk readings are taken, weather conditions will be noted on field sheets (time of day, cloud cover, wave conditions, etc.).

Profiles will be performed at 0.5 meter intervals using a hand held dissolved oxygen monitoring device (manufactured by YSI, Inc. or equivalent). Temperature and dissolved oxygen measurements will be replicated by using a second hand held device at both surface and bottom of the basin. In the event that replicate analyses differ by more than 1.0 mg/L D.O or 1.8°F (1°C), the meters will be recalibrated and the profile will be repeated. Results of the profiles and secchi disk readings will be included in the annual report.

5. Annual Monitoring Results - Reports

All temperature and corrected dissolved oxygen data will be compiled and summarized in an annual report submitted to the Commission, Water Division of the MDEQ, and to members of the Bond Falls Implementation Team. A hard copy of the report will be filed with the Commission, and electronic copies of the data will be

provided to the MDEQ and Bond Falls Implementation Team members in Excel format. A report will be submitted within 30 days of the completion of the annual monitoring period. For each continuous monitoring location, the following information will be provided:

- A. A summary of all data collected with a determination of the monthly minimum, maximum, and average temperature and dissolved oxygen concentration at each monitoring location. All DO data corrected for calibration drift and raw temperature data will be presented in tabular and graphical form. All data gaps, if they occur, shall be explained.
- B. A comparison of temperature and DO data with the state water quality standard will be presented in graphical form. Any deviations from the water quality standard shall be explained, including environmental factors and operational conditions that may have contributed or mitigated water quality conditions.
- C. All quality assurance data.
- D. A summary of the frequency and magnitude of any values that exceed the limits at each station.

6. Monitoring Schedule Amendments

In the event that monitoring studies demonstrate that the water quality limits of Article 408 are exceeded, UPPCO shall consult with the Water Division of the MDEQ and the Bond Falls Implementation Team to determine any operational measures to be implemented to improve water quality. The licensee shall bear the cost of any operational measures to improve water quality. If operational measures fail to improve water quality, least cost structural solutions shall be the next option. All water quality mitigation measures shall be developed and implemented in consultation with the MDEQ and other members of the Implementation Team. The Mitigation Enhancement Fund shall fund any required structural mitigation until the fund is exhausted, at which point UPPCO will fund the remaining costs. Structural mitigation plans shall be developed in consultation with the MDEQ and Implementation Team. UPPCO shall file construction plans with the Commission for approval prior to any construction of modifications.

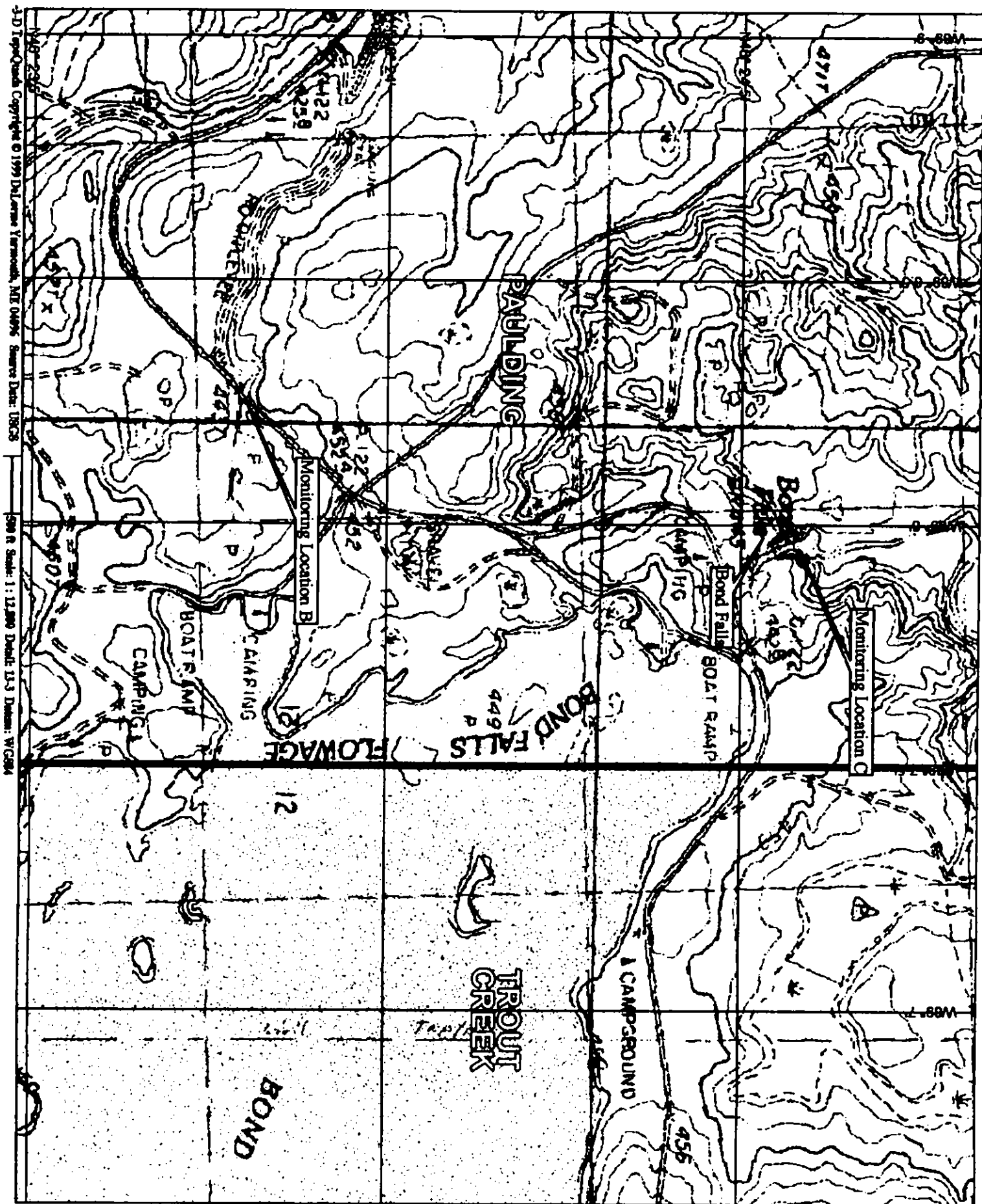
After the initial three-year period of dissolved oxygen and temperature monitoring, UPPCO will consult with the Water Division of the MDEQ and the Bond Falls Project Implementation Team to determine any actions to be taken based upon the results of the initial three-year monitoring period. Any additional monitoring or other actions may be implemented by UPPCO through agency consultation and upon written approval by the Commission. The Mitigation Enhancement Fund will fund any

additional monitoring until the fund is exhausted, at which point UPPCO will fund the remaining costs.

UPPCO is evaluating the sale of the Cisco Dam and Development. In the event that the Cisco development is removed from the Hydroelectric Project, UPPCO will be relieved of the requirement to monitor for dissolved oxygen and temperature.

Appendix A

Proposed Monitoring Location Maps





Appendix B

Documentation of Agency Consultation



Upper Peninsula Power Company

(a subsidiary of WPS Resources Corporation)

700 N. Adams Street

P.O. Box 19001

Green Bay, WI 54307-9001

December 3, 2003

FERC Project No. 1864

Mr. John Suppnick
Dept. of Environmental Quality
Surface Water Quality Division
P. O. Box 30273
Lansing, MI 48909

Dear Mr. Suppnick:

Draft Water Quality Monitoring Plan for the Bond Falls Hydroelectric Project
(FERC Project No. 1864)

Upper Peninsula Power Company (UPPCO) is pleased to submit the Draft Water Quality Management Plan for your review and comment.

The Water Quality Monitoring Plan addresses the requirements listed in Article 409 of the Order Approving Settlement and Issuing New License, dated August 20, 2003. The plan includes provisions for monitoring water temperature and dissolved oxygen (DO) at several locations within the Bond Falls Hydroelectric Project. A copy of the Draft Water Quality Monitoring Plan is enclosed for your review and comment.

The following individuals are receiving a copy of the proposed plan for comments:

Ms. Jessica Mistak – Michigan Department of Natural Resources
Mr. Burr Fisher – U.S. Fish & Wildlife Service
Mr. Mike Donofrio – Keweenaw Bay Chippewa Tribe
Ms. Marcia Kimball – U.S. Department of the Interior
Mr. Robert Evans – U.S. Forest Service
Mr. Bob Martini – Wisconsin Department of Natural Resources

Please review the enclosed plans and make any comments or suggestions as soon as possible, but before January 9, 2004. Should you have any questions or concerns, please do not hesitate to call me at (920) 433-1833. Thank you for your time and consideration.

Sincerely,

Mark W. Metcalf
Environmental Consultant
Telephone: (920) 433-1833

Enc.



JENNIFER M. GRANHOLM
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING



STEVEN E. CHESTER
DIRECTOR

January 7, 2004

Mr. Mark Metcalf
Upper Peninsula Power Company
P.O. Box 19001
Green Bay, WI 54307-9001

Dear Mr. Metcalf:

The Michigan Department of Environmental Quality (MDEQ) has reviewed the draft Water Quality Monitoring Plan dated December 3, 2003 for the Bond Falls Hydroelectric Project and has the following comments.

In Section 1.B: The Victoria Powerhouse location should meet the 7 milligrams per liter (mg/l) dissolved oxygen (DO) limit and not the 5 mg/l DO limit. The License erroneously stated that the 5 mg/l limit applied at the Victoria Powerhouse but this was inconsistent with the Settlement.

In Section 1.C: Change Surface Water Quality Division to Water Division.

In Section 2: The Cisco Dam monitoring location should be moved closer to the dam if feasible and preferably at the same site where the United States Forest Service is monitoring. The Bergland Dam monitoring location should also be closer to the dam and near the United States Geological Survey gage. The Victoria Powerhouse monitoring location as proposed appears to be at a location where turbine flow and bypass flow are not completely mixed. This is acceptable however the exact monitoring location chosen should be on the side of the River where turbine flow would predominate. We agree that water quality monitoring is not necessary downstream of the Victoria Dam.

In addition to what you have proposed, we request that you take temperature and DO profile measurements in the Victoria and Bond Falls Reservoir. These profiles should be taken at the deepest location near the Bond Falls and Victoria intake(s) monthly from June through September. Measurements should be made at 0.5 meter increments or less. Secchi disk depth measurements should also be made at the same time as the profiling.

In Section 3: The plan should state the following data quality objective: The DO calibration drift should be less than 1.0 mg/l at least 70 percent of the time and more frequent maintenance visits will be made if this criterion is not met.

Section 4: State that additional monitoring will be initiated as necessary and in cooperation with the MDEQ to determine the cause and downstream extent of any DO or temperature values that exceed the limits in the License.

Please also state in the plan that the following information will be included in the annual report:

- Calculation of monthly average temperature at each continuously monitored station.
- A graph of the entire monitoring season for DO and temperature at each continuous station.

Mr. Mark Metcalf

Page 2

January 7, 2004

- A summary of the frequency and magnitude of any values that exceed the limits at each station.
- An evaluation of the relationship between any observed temperature or DO exceedances and other environmental factors and operating characteristics of the dam.
- Hourly data from an entire monitoring season should be presented in one worksheet and made available electronically to the MDEQ.

If you have any questions, please contact me.

Sincerely,



John Suppnick
Surface Water Quality Assessment Section
Water Division
517-335-4192

js:yg

cc: Mr. Bill Deephouse, MHRC
Mr. Robert Evans, USFS
Mr. Mark Fedora, USFS
Mr. Burr Fisher, USFWS
Mr. Mike Donofrio, KBIC
Mr. Bob Martini, WDNR
Ms. Jessica Mistak, Fisheries Division, MDNR
Mr. Chris Freiburger, MDNR

From: "John Suppnick" <SUPPNICJ@michigan.gov>
To: <MMETCAL@wpsr.com>
Date: 1/14/04 3:34PM
Subject: Re: Bond Falls Water Quality Monitoring Plan

Mark,

The usual mechanism for the release of low dissolved oxygen (DO) water at hydro dams is by the entrainment of low DO water from the lower part of the impoundment. Also, there can be periods of time (usually in late summer) when the thermal stratification breaks in an impoundment and low DO water circulates throughout the impoundment for a period of time.

If low DO water is discharged, the profiles provide useful supplementary information to help evaluate the cause of the low DO and allows the evaluation of potential solutions to the problem. We ask for the secchi depth measurements because it is a quick and easy assessment of level of eutrophication and the depth that light can penetrate. This is always a useful parameter when evaluating oxygen levels in a lake or impoundment.

Let me know if you have any further questions.

John

John Suppnick
 Michigan Department of Environmental Quality
 Water Division
 517-335-4192
 suppnicj@michigan.gov

>>> "Mark W Metcalf" <MMETCAL@wpsr.com> 01/14/04 04:11PM >>>
 John,

Thank you for your comments on the Bond Falls Water Quality Monitoring Plan. I am working on the final revision and I anticipate submitting the Plan to FERC by the end of the month.

I do have one question for you. Shawn Puzen informed me that during a phone conference with members of the Implementation Team earlier today, a question was raised about the request for DO profiles and secchi disk readings at the Bond Falls and Victoria developments. Could you please elaborate on the reason(s) for performing DO and temperature profiles? Jessica Mistak suggested that you be contacted on this matter as there were no representatives of the MDEQ present for the discussion.
 Thank you for your time and input on this matter.

Sincerely,

Mark Metcalf
 Environmental Consultant\Chemist
 Wisconsin Public Service Corp.
 920-433-1833
 mmetcal@wpsr.com

Response to Comments by the Michigan Department of Environmental Quality

Comment: In Section 1.B: The Victoria Powerhouse location should meet the 7 milligrams per liter (mg/l) dissolved oxygen (DO) limit and not the 5 mg/l DO limit. The License erroneously stated that the 5 mg/l limit applied at the Victoria Powerhouse but this was inconsistent with the Settlement.

Response: The Settlement Agreement states the dissolved oxygen level below the Victoria Powerhouse shall not be less than 7.0 mg/l. However, the bypassed section of river immediately upstream of the confluence of the Victoria Powerhouse tailrace and the bypassed section has a 5.0 mg/L dissolved oxygen limit. The monitoring location below the Victoria Powerhouse should be in a location that represents the mixing of the bypass flow and turbine flow. UPPCO should not be required to meet the higher, 7.0mg/L dissolved oxygen concentration standard, when part of the inflow is not required to meet the same standard. Furthermore, due to the configuration of the intake structure at the Victoria Reservoir, when the reservoir stratifies in the summer months, colder, lower dissolved oxygen water would be drawn through the intake for use at the powerhouse, making the 7.0 mg/L limit more difficult to obtain without some operational or structural modifications to the facility. UPPCO believes that the 5.0 mg/L limit written in the license should be the dissolved oxygen standard below the Victoria Powerhouse. However, UPPCO will strive to attain the 7.0 mg/L dissolved oxygen concentration, and will report any observed incidents to the Water Division of the MDEQ and members of the Implementation Team.

Comment: In Section 1.C: Change Surface Water Quality Division to Water Division.

Response: The plan has been amended accordingly.

Comment: In Section 2: The Cisco Dam monitoring location should be moved closer to the dam if feasible and preferably at the same site where the United States Forest Service is monitoring. The Bergland Dam monitoring location should be closer to the dam and near the United States Geological Survey gage. The Victoria Powerhouse monitoring location as proposed appears to be at a location where turbine flow and bypass flow are not completely mixed. This is acceptable however the exact monitoring location chosen should be on the side of the River where turbine flow would predominate. We agree that water quality monitoring is not necessary downstream of the Victoria Dam.

Response: As described in Section 2 of the Water Quality Monitoring Plan, UPPCO will consult with members of the Bond Falls Implementation Team to site the exact monitoring locations. The locations recommended by the MDEQ have been noted and will be considered.

Comment: In addition to what you have proposed, we request that you take temperature and DO profile measurements in the Victoria and Bond Falls Reservoir. These profiles should be taken at the deepest location near the Bond Falls and Victoria intake(s) monthly from June through September. Measurements should be made at 0.5 meter increments or less. Secchi disk depth measurements should also be made at the same time as the profiling.

Response: Comment noted. The plan has been amended to state the following:

At the Victoria and Bond Falls Developments, vertical temperature and dissolved oxygen profiles will be performed monthly from June 1 to September 30. Secchi disk depth measurements will be made at the same time as the profile. The profile will be performed from a safe and easily accessible location on the top of the dam(s). When secchi disk readings are taken, weather conditions will be noted on field sheets (time of day, cloud cover, wave conditions, etc.).

Profiles will be performed at 0.5 meter intervals using a hand held dissolved oxygen monitoring device (manufactured by YSI, Inc. or equivalent). Temperature and dissolved oxygen measurements will be replicated by using a second hand held device at both surface and bottom of the basin. In the event that replicate analyses differ by more than 1.0 mg/L D.O or 1.8°F (1°C), the meters will be recalibrated and the profile will be repeated. Results of the profiles and secchi disk readings will be included in the annual report.

Comment: In Section 3: The plan should state the following water quality objective: The DO calibration drift should be less than 1.0 mg/l at least 70 percent of the time and more frequent maintenance visits will be made if this criterion is not met.

Section 4: State that additional monitoring will be initiated as necessary and in cooperation with the MDEQ to determine the cause and downstream extent of any DO or temperature values that exceed the limits of the License.

Response: UPPCO agrees that after the first year of monitoring, an evaluation should be performed to determine if calibration drift is a problem. An evaluation should be made to determine if calibration drift is dependent on the monitoring location (if debris or other environmental conditions are effecting the monitoring results) or equipment maintenance/error and if monitoring should occur on a more frequent schedule. The plan has been amended to state the following:

"At the time the monitoring equipment is removed from monitoring, a post calibration will be performed per the manufacturer instructions to determine loss of calibration, with a goal of less than 1.0 mg/l drift or error at least 70% of the time over the monitoring season. UPPCO shall consult with the resource agencies to determine the cause and downstream extent of deviations from water quality standards and determine appropriate corrective action."

Comment: Please also state in the plan that the following information will be included in the annual report:

- Calculation of monthly average temperature at each continuously monitored station.
- A graph of the entire monitoring season for DO and temperature at each continuous station.
- A summary of the frequency and magnitude of any values that exceed the limits at each station.
- An evaluation of the relationship between any observed temperature or DO exceedances and other environmental factors and operation characteristics of the dam.
- Hourly data from an entire monitoring season should be presented in one worksheet and made available electronically to the MDEQ.

Response: The plan has been amended to reflect the information request.



Upper Peninsula Power Company

(a subsidiary of WPS Resources Corporation)

700 N. Adams Street

P.O. Box 19001

Green Bay, WI 54307-9001

December 3, 2003

FERC Project No. 1864

Ms. Jessica Mistak
Michigan Department of Natural Resources
Marquette State Fish Hatchery and Station
488 Cherry Creek Road
Marquette, MI 49855

Dear Ms. Mistak:

Draft Water Quality Monitoring Plan for the Bond Falls Hydroelectric Project
(FERC Project No. 1864)

Upper Peninsula Power Company (UPPCO) is pleased to submit the Draft Water Quality Management Plan for your review and comment.

The Water Quality Monitoring Plan addresses the requirements listed in Article 409 of the Order Approving Settlement and Issuing New License, dated August 20, 2003. The plan includes provisions for monitoring water temperature and dissolved oxygen (DO) at several locations within the Bond Falls Hydroelectric Project. A copy of the Draft Water Quality Monitoring Plan is enclosed for your review and comment.

The following individuals are receiving a copy of the proposed plan for comments:

Ms. Marcia Kimball – U.S. Department of the Interior
Mr. Burr Fisher – U.S. Fish & Wildlife Service
Mr. Mike Donofrio – Keweenaw Bay Chippewa Tribe
Mr. John Suppnick – Michigan Department of Environmental Quality
Mr. Robert Evans – U.S. Forest Service
Mr. Bob Martini – Wisconsin Department of Natural Resources

Please review the enclosed plans and make any comments or suggestions as soon as possible, but before January 9, 2004. Should you have any questions or concerns, please do not hesitate to call me at (920) 433-1833. Thank you for your time and consideration.

Sincerely,

Mark W. Metcalf
Environmental Consultant
Telephone: (920) 433-1833

Enc.



STATE OF MICHIGAN

JENNIFER M. GRANHOLM
GOVERNOR

DEPARTMENT OF NATURAL RESOURCES
LANSING

K. L. COOL
DIRECTOR

Refer to: 4202.2.36

January 5, 2004

Mr. Mark Metcalf
Upper Peninsula Power Company
P.O. Box 19001
Green Bay, WI 54307-9001

Subject: Bond Falls Hydroelectric Project (FERC No. 1864)
Comments on the Draft Water Quality Monitoring Plan

Dear Mr. Metcalf:

The Michigan Department of Natural Resources (MDNR) is in receipt of Upper Peninsula Power Company's (UPPCO) draft copy of the Water Quality Monitoring Plan dated December 3, 2003. After reviewing the draft plan, we have the following comments, organized by section:

1.B. Bond Falls Development

- Should be changed to read "UPPCO shall not cause the dissolved oxygen concentration measured in the **West and Middle Branches** of the Ontonagon River and in Roselawn Creek downstream of the **Victoria Powerhouse and Bond Falls Dams** to be less than 7.0mg/l." There is an error in License Article 408 where it states that the standard below the powerhouse to be 5.0 mg/l.

Bergland, Cisco, and Victoria Developments

- Should be changed to read "UPPCO shall not cause the dissolved oxygen concentrations in the Cisco and West Branches of the Ontonagon River downstream of the Cisco and Bergland Dams to be less than 5.0mg/l". Victoria Dam should not be included in the above statement because there is no minimum flow requirement in the bypassed reach during most of the year, and there are no plans to conduct monitoring in this reach.

1.C. Continuous Monitoring-Reporting Deviations

- Identify MDEQ contact as John Suppnick
- UPPCO shall also notify the members of the Bond Falls Implementation Team in the event of deviations

2. Temperature and Dissolved Oxygen Monitoring Locations and Schedule

- MDNR is looking forward to working with UPPCO in the spring to determine

exact monitoring locations

A. Cisco Dam- monitoring should be closer to dam. Location should be coordinated with the U.S. Forest Service to complement their long-term water quality dataset.

D. Bergland Dam- monitoring should take place below dam near USGS gage

E. Victoria Powerhouse- monitoring location should accurately characterize turbine flow

- The first sentence of final paragraph should read "Article 408 states that UPPCO shall not cause dissolved oxygen levels below Victoria Dam to be less than 5 mg/l."
- The second sentence of final paragraph should read "run-of-river mode from April 15 through June 15."
- MDNR agrees that monitoring is not necessary below Victoria Dam.
- Additionally, MDNR would like UPPCO to take temperature and DO profile measurements at Victoria Dam and Bond Falls Reservoir. These profiles shall be taken near the intake(s) on a monthly basis June through September. Measurements shall be made at 0.5 meter increments or less. Temperature and DO measurements shall be replicated at the surface and at the bottom with a replicate measurement system, such as a Winkler analysis if a probe is used for the profiling. If replicate errors are greater than 1 mg/l for DO or 1.8° F for temperature, then the measurement system shall be evaluated, corrective actions shall be taken, and the measurements shall be repeated. Secchi disk depth measurements shall be made at the same time as the profiling. Report of the profile measurements shall be included in the annual report.

3. Monitoring Equipment and Quality Assurance

- If DO calibration drift is not within 1.0 mg/l at least 70% of the time, UPPCO should consult with the resource agencies to determine a more frequent monitoring schedule.
- See above comment for quality assurance associated with reservoir profiles

4. Annual Monitoring Results- Reports

- If problems are found after reviewing first year of data, the Implementation Team should review the water quality monitoring plan to determine if changes are needed.
- Please also include the following information in the annual report:
 - Calculated monthly average temperature
 - An upstream/downstream (where applicable) comparison of the DO and temperature for the entire monitoring season, including the frequency

and magnitude of any values that exceed or violate the standard at each station. This data should be presented in a graph that clearly identifies the state standard.

- An evaluation of the relation between any observed temperature or DO violations and other environmental factors that were monitored and operating characteristics of the dam.
- Hourly data from entire monitoring season should be presented in one Excel worksheet and available electronically.

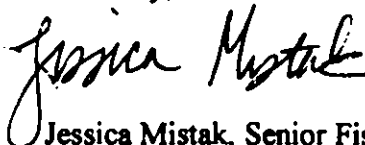
6. **Monitoring Schedule Amendments**

- After the first sentence of the first paragraph, add "The licensee shall bear the cost of any operational measures to improve water quality."
- Before the last sentence of the first paragraph add "All water quality mitigation measures shall be developed and implemented in consultation with MDEQ and other members of the Implementation Team."
- At the end of the first paragraph add "These plans must be developed in consultation with MDEQ and the Implementation Team."

Lastly, since the Mitigation Enhancement Fund funds water quality monitoring, cost projections for monitoring should be provided to the Implementation Team prior to implementation.

Thank you for the opportunity to comment. If you have any questions, please contact me.

Sincerely,



Jessica Mistak, Senior Fisheries Biologist
Marquette Fisheries Station
484 Cherry Creek Rd
Marquette, MI 49855
906-249-1611 ext 308
mistakjl@michigan.gov

cc: Mr. Chris Freiburger, MDNR
Mr. Bill Deephouse, MHRC
Mr. Robert Evans, USFS
Mr. Mark Fedora, USFS
Mr. Burr Fisher, USFWS
Mr. John Suppnick, MDEQ
Mr. Mike Donofrio, KBIC
Mr. Bob Martini, WDNR

Response to Comments by the Michigan Department of Natural Resources

Comment: 1B. Bond Falls Development

Should change to read "UPPCO shall not cause the dissolved oxygen concentration measured in the West and Middle Branches of the Ontonagon River and in Roselawn Creek downstream of the Victoria Powerhouse and Bond Falls Dams to be less than 7.0 mg/L". There is an error in License Article 408 where it states that the standard below the powerhouse to be 5.0 mg/L.

Response: The Settlement Agreement states the dissolved oxygen level below the Victoria Powerhouse shall not be less than 7.0 mg/l. However, the bypassed section of river immediately upstream of the confluence of the Victoria Powerhouse tailrace and the bypassed section has a 5.0 mg/L dissolved oxygen limit. The monitoring location below the Victoria Powerhouse should be in a location that represents the mixing of the bypass flow and turbine flow. UPPCO should not be required to meet the higher, 7.0mg/L dissolved oxygen concentration standard, when part of the inflow is not required to meet the same standard. Furthermore, due to the configuration of the intake structure at the Victoria Reservoir, when the reservoir stratifies in the summer months, colder, lower dissolved oxygen water would be drawn through the intake for use at the powerhouse, making the 7.0 mg/L limit more difficult to obtain without some operational or structural modifications to the facility. UPPCO believes that the 5.0 mg/L limit written in the license should be the dissolved oxygen standard below the Victoria Powerhouse. However, UPPCO will strive to attain the 7.0 mg/L dissolved oxygen concentration, and will report any observed incidents to the Water Division of the MDEQ and members of the Implementation Team.

Comment: Bergland, Cisco, and Victoria Developments

Should change to read "UPPCO shall not cause the dissolved oxygen concentrations in the Cisco and West branches of the Ontonagon River downstream of the Cisco and Bergland Dams to be less than 5.0 mg/L". Victoria Dam should not be included in the above statement because there is no minimum flow requirement in the bypassed reach during most of the year, and there are no plans to conduct monitoring in this reach.

Response: Comment noted. The plan has been amended accordingly.

Comment: 1C. Continuous monitoring – Reporting Deviations

Identify MDEQ contact as John Suppnick.

UPPCO shall also notify the members of the Bond Falls Implementation Team in the event of deviations.

Response: The plan identifies the Water Division of the MDEQ as the contact for the MDEQ. At this time, Mr. Suppnick is the contact representing the Water Division of the MDEQ. The

plan has been amended to indicate that the Water Division of the MDEQ and members of the Implementation Team will be notified in the event of deviations from water quality standards.

Comment: Temperature and Dissolved Oxygen Monitoring Locations and Schedule

MDNR is looking forward to working with UPPCO in the spring time to determine exact monitoring locations.

- A. Cisco Dam – monitoring should be closer to the dam. Location should be coordinated with the U.S. Forest Service to complement their long-term water quality dataset.
- D. Bergland Dam – Monitoring should take place below dam near USGS gage.
- E. Victoria Powerhouse – monitoring location should accurately characterize turbine flow.

The first sentence of the final paragraph should read "Article 408 states that UPPCO shall not cause dissolve oxygen levels below Victoria Dam to be less than 5.0 mg/l

The second sentence of the final paragraph should read "run-of-river mode from April 15 through June 15".

MDNR agrees that monitoring is not necessary below Victoria Dam.

Response: As described in Section 2 of the Water Quality Monitoring Plan, UPPCO will consult with members of the Bond Falls Implementation Team to site the exact monitoring locations. The locations recommended by the MDNR have been noted and will be considered. Comments on the final paragraph have been noted, and the plan has been amended accordingly.

Comment: Additionally, MDNR would like UPPCO to take temperature and DO profile measurements at Victoria Dam and Bond Falls Reservoir. These profiles shall be taken near the intake(s) on a monthly basis June through September. Measurements shall be made at 0.5-meter increments or less. Temperature and DO measurements shall be replicated at the surface and at the bottom with a replicate measuring system, such as a Winkler analysis if a probe is used for the profiling. If replicate errors are greater than 1 mg/l for DO or 1.8°F for temperature, then the measurement system shall be evaluated, corrective actions shall be taken, and the measurements shall be repeated. Secchi disk depth measurements shall be made at the same time as the profiling. Report of the profile measurements shall be included in the annual report.

Response: Comment noted. The plan has been amended to state the following:

At the Victoria and Bond Falls Developments, vertical temperature and dissolved oxygen profiles will be performed monthly from June 1 to September 30. Secchi disk depth measurements will be made at the same time as the profile. The profile will be performed from a safe and easily accessible location on the top of the dam(s). When secchi disk readings are

taken, weather conditions will be noted on field sheets (time of day, cloud cover, wave conditions, etc.).

Profiles will be performed at 0.5 meter intervals using a hand held dissolved oxygen monitoring device (manufactured by YSI, Inc. or equivalent). Temperature and dissolved oxygen measurements will be replicated by using a second hand held device at both surface and bottom of the basin. In the event that replicate analyses differ by more than 1.0 mg/L D.O or 1.8°F (1°C), the meters will be recalibrated and the profile will be repeated. Results of the profiles and secchi disk readings will be included in the annual report.

Comment: Monitoring Equipment and Quality Assurance

If DO calibration drift is not within 1.0 mg/l at least 70% of the time, UPPCO should consult with the resource agencies to determine a more frequent monitoring schedule.

Response: UPPCO agrees that after the first year of monitoring, an evaluation should be performed to determine if calibration drift is a problem. An evaluation should be made to determine if calibration drift is dependent on the monitoring location (if debris or other environmental conditions are effecting the monitoring results) or equipment maintenance/error and if monitoring should occur on a more frequent schedule. The plan has been amended to state the following:

"At the time the monitoring equipment is removed from monitoring, a post calibration will be performed per the manufacturer instructions to determine loss of calibration, with a goal of less than 1.0 mg/l drift or error at least 70% of the time over the monitoring season. UPPCO shall consult with the resource agencies to determine the cause and downstream extent of deviations from water quality standards and determine appropriate corrective action."

Comment: Annual Monitoring Results – Reports

If problems are found after reviewing first year data, the Implementation Team should review the water quality monitoring plan to determine if changes are needed.

Response: UPPCO agrees with MDNR's statement. Comment noted.

Comment: Please also include the following information on the annual report:

- Calculated monthly average temperature
- An upstream/downstream (where applicable) comparison of the DO and temperature for the entire monitoring season, including the frequency and magnitude of any values that exceed or violate the standard at each station. This data should be presented in a graph that clearly identifies the state standard.
- An evaluation of the relationship between any observed temperature or DO violations and other environmental factors that were monitored and operating characteristics of the dam.

- Hourly data from the entire monitoring season should be presented in one excel worksheet and available electronically.

Response: The plan has been amended to reflect the request for information, with the exception of the upstream/downstream comparison. Due to the distances between monitoring locations (even on the same branch of river), a comparison of the results would not be practical. Data for the entire monitoring year will be graphed for each monitoring location, with the water quality standard clearly identified.

Comment: Monitoring Schedule Amendments

- After the first sentence of the first paragraph, add "The licensee shall bear the cost of any operational measures to improve water quality."
- Before the last sentence of the first paragraph, add "All water quality mitigation measures shall be developed and implemented in consultation with the MDEQ and other members of the Implementation Team".
- At the end of the first paragraph add "These plans must be developed in consultation with the MDEQ and Implementation Team".

Response: Comments noted. The plan has been amended accordingly.

Comment: Lastly, since the Mitigation Enhancement Fund funds the water quality monitoring, cost projections for monitoring should be provided to the Implementation Team prior to implementation.

Response: The water quality monitoring plan has been developed to define the process and procedures to be implemented for successful water quality monitoring. Cost estimates are not part of the monitoring process or procedure and will not be covered in the water quality monitoring plan. Cost estimates for annual water quality monitoring have been provided to members of the Bond Falls Implementation Team.



Upper Peninsula Power Company

(a subsidiary of WPS Resources Corporation)

700 N. Adams Street

P.O. Box 19001

Green Bay, WI 54307-9001

December 3, 2003

FERC Project No. 1864

Mr. Robert Evans
US Forest Service
Old US 45
Box 276
Watersmeet, MI 49969

Dear Mr. Evans:

Draft Water Quality Monitoring Plan for the Bond Falls Hydroelectric Project
(FERC Project No. 1864)

Upper Peninsula Power Company (UPPCO) is pleased to submit the Draft Water Quality Management Plan for your review and comment.

The Water Quality Monitoring Plan addresses the requirements listed in Article 409 of the Order Approving Settlement and Issuing New License, dated August 20, 2003. The plan includes provisions for monitoring water temperature and dissolved oxygen (DO) at several locations within the Bond Falls Hydroelectric Project. A copy of the Draft Water Quality Monitoring Plan is enclosed for your review and comment.

The following individuals are receiving a copy of the proposed plan for comments:

Ms. Jessica Mistak – Michigan Department of Natural Resources
Mr. Burr Fisher – U.S. Fish & Wildlife Service
Mr. Mike Donofrio – Keweenaw Bay Chippewa Tribe
Ms. Marcia Kimball – U.S. Department of the Interior
Mr. John Supnick – Michigan Department of Environmental Quality
Mr. Bob Martini – Wisconsin Department of Natural Resources

Please review the enclosed plans and make any comments or suggestions as soon as possible, but before January 9, 2004. Should you have any questions or concerns, please do not hesitate to call me at (920) 433-1833. Thank you for your time and consideration.

Sincerely,

Mark W. Metcalf
Environmental Consultant
Telephone: (920) 433-1833

Enc.



United States
Department of
Agriculture

Forest
Service

Ottawa National Forest
Supervisor's Office

E6248 US2
Ironwood, MI 49938
(906) 932-1330
(906) 932-0122 (FAX)
(906) 932-0301 (TTY)

File Code: 2770-2

Date: January 5, 2004

Mr. Mark Metcalf
Upper Peninsula Power Company
P.O. Box 19001
Green Bay, WI 54307-9001

Dear Mr. Metcalf:

Thank you for the opportunity to review Upper Peninsula Power Company's (UPPCO) draft Water Quality Monitoring Plan dated December 3, 2003. After reviewing the draft plan, we have the following comments, organized by section:

1.B. Bond Falls Development

- Should be changed to read "UPPCO shall not cause the dissolved oxygen concentration measured in the **West and Middle Branches** of the Ontonagon River and in Roselawn Creek downstream of the **Victoria Powerhouse and Bond Falls Dams** to be less than 7.0 mg/l." There is an error in License Article 408 where it states that the standard below the powerhouse to be 5.0 mg/l.

Bergland, Cisco, and Victoria Developments

- Should be changed to read "UPPCO shall not cause the dissolved oxygen concentrations in the Cisco and West Branches of the Ontonagon River downstream of the Cisco and Bergland Dams to be less than 5.0mg/l". Victoria Dam should not be included in the above statement because there is no minimum flow requirement in the bypassed reach during most of the year, and there are no plans to conduct monitoring in this reach.

1.C. Continuous Monitoring-Reporting Deviations

- Identify Michigan Department of Environmental Quality (MDEQ) contact as John Suppnick.
- UPPCO shall also notify the members of the Bond Falls Implementation Team in the event of deviations.

2. Temperature and Dissolved Oxygen (DO) Monitoring Locations and Schedule

The Forest Service is looking forward to working with UPPCO in the spring to determine exact monitoring locations.



- 2.A. Cisco Dam- monitoring should be closer to dam. The location should be the same as where we have monitored water quality in the past.
- 2.D. Bergland Dam- monitoring should take place below the dam near the USGS gage.
- 2.E. Victoria Powerhouse- monitoring location should accurately characterize turbine flow.

2. Final paragraph: The first sentence of final paragraph should read "Article 408 states that UPPCO shall not cause dissolved oxygen levels below Victoria Dam to be less than 5 mg/l." The second sentence should read: "Per the Bond Falls Settlement....run-of-river mode from April 15 through June 15." The Forest Service agrees that monitoring is not necessary below Victoria Dam.

Additionally, the Forest Service would like UPPCO to take temperature and DO profile measurements at Victoria Dam and Bond Falls Reservoir. These profiles shall be taken near the intake(s) on a monthly basis June through September. Measurements shall be made at 0.5-meter increments or less. Temperature and DO measurements shall be replicated at the surface and at the bottom with a replicate measurement system, such as a Winkler analysis if a probe is used for the profiling. If replicate errors are greater than 1 mg/l for DO or 1.8° F for temperature, then the measurement system shall be evaluated, corrective actions shall be taken, and the measurements shall be repeated. Secchi disk depth measurements shall be made at the same time as the profiling. Report of the profile measurements shall be included in the annual report.

- 3. Monitoring Equipment and Quality Assurance
 - If DO calibration drift is not within 1.0 mg/l at least 70% of the time, UPPCO should consult with the resource agencies to determine a more frequent monitoring schedule.
 - See above comment for quality assurance associated with reservoir profiles.
- 4. Annual Monitoring Results- Reports
 - If problems are found after reviewing first year of data, the Implementation Team should review the water quality monitoring plan to determine if changes are needed.
 - Please also include the following information in the annual report:
 - Calculated monthly average temperature
 - An upstream/downstream (where applicable) comparison of the DO and temperature for the entire monitoring season, including the frequency and magnitude of any values that exceed or violate the standard at each station. This data should be presented in a graph that clearly identifies the state standard.
 - An evaluation of the relation between any observed temperature or DO violations and other environmental factors that were monitored and operating characteristics of the dam.
 - Hourly data from entire monitoring season should be presented in one Excel worksheet and available electronically.

5. **Monitoring Schedule Amendments**

- After the first sentence of the first paragraph, add: "The licensee shall bear the cost of any operational measures to improve water quality."
- Before the last sentence of the first paragraph add: "All water quality mitigation measures shall be developed and implemented in consultation with MDEQ and other members of the Implementation Team."
- At the end of the first paragraph add: "These plans must be developed in consultation with MDEQ and the Implementation Team."

Lastly, since the Mitigation Enhancement Fund funds water quality monitoring, cost projections for monitoring should be provided to the Implementation Team prior to implementation.

Thank you for the opportunity to comment. If you have any questions, please contact Bob Evans (906-265-5139, ext. 29) or Mark Fedora (906-932-1330, ext. 318).

Sincerely,



ROBERT LUECKEL
Forest Supervisor

cc: Ms. Jessica Mistak, MDNR
Mr. Bill Deephouse, MHRC
Mr. Robert Evans, USFS
Mr. Mark Fedora, USFS
Mr. Burr Fisher, USFWS
Mr. John Suppnick, MDEQ
Mr. Mike Donofrio, KBIC
Mr. Bob Martini, WDNR
Dr. Robert Schmal, USFS

Response to Comments by the United States Forest Service (USFS)

Comment: 1B. Bond Falls Development

Should change to read "UPPCO shall not cause the dissolved oxygen concentration measured in the West and Middle Branches of the Ontonagon River and in Roselawn Creek downstream of the Victoria Powerhouse and Bond Falls Dams to be less than 7.0 mg/L". There is an error in License Article 408 where it states that the standard below the powerhouse to be 5.0 mg/L.

Response: The Settlement Agreement states the dissolved oxygen level below the Victoria Powerhouse shall not be less than 7.0 mg/l. However, the bypassed section of river immediately upstream of the confluence of the Victoria Powerhouse tailrace and the bypassed section has a 5.0 mg/L dissolved oxygen limit. The monitoring location below the Victoria Powerhouse should be in a location that represents the mixing of the bypass flow and turbine flow. UPPCO should not be required to meet the higher, 7.0mg/L dissolved oxygen concentration standard, when part of the inflow is not required to meet the same standard. Furthermore, due to the configuration of the intake structure at the Victoria Reservoir, when the reservoir stratifies in the summer months, colder, lower dissolved oxygen water would be drawn through the intake for use at the powerhouse, making the 7.0 mg/L limit more difficult to obtain without some operational or structural modifications to the facility. UPPCO believes that the 5.0 mg/L limit written in the license should be the dissolved oxygen standard below the Victoria Powerhouse. However, UPPCO will strive to attain the 7.0 mg/L dissolved oxygen concentration, and will report any observed incidents to the Water Division of the MDEQ and members of the Implementation Team.

Comment: Bergland, Cisco, and Victoria Developments

Should change to read "UPPCO shall not cause the dissolved oxygen concentrations in the Cisco and West branches of the Ontonagon River downstream of the Cisco and Bergland Dams to be less than 5.0 mg/L". Victoria Dam should not be included in the above statement because there is no minimum flow requirement in the bypassed reach during most of the year, and there are no plans to conduct monitoring in this reach.

Response: Comment noted. The plan has been amended accordingly.

Comment: 1C. Continuous monitoring – Reporting Deviations

Identify MDEQ contact as John Suppnick.

UPPCO shall also notify the members of the Bond Falls Implementation Team in the event of deviations

Response: The plan identifies the Water Division of the MDEQ as the contact for the MDEQ. At this time, Mr. Suppnick is the contact representing the Water Division of the MDEQ. The

plan has been amended to indicate that the Water Division of the MDEQ and members of the Implementation Team will be notified in the event of deviations.

Comment: Temperature and Dissolved Oxygen Monitoring Locations and Schedule

The Forest Service is looking forward to working with UPPCO in the spring time to determine exact monitoring locations.

2.A. Cisco Dam – monitoring should be closer to the dam. Location should be coordinated with the U.S. Forest Service to complement their long-term water quality dataset.

2.D. Bergland Dam – Monitoring should take place below dam near USGS gage.

2.E. Victoria Powerhouse – monitoring location should accurately characterize turbine flow.

Final Paragraph: The first sentence of the final paragraph should read "Article 408 states that UPPCO shall not cause dissolve oxygen levels below Victoria Dam to be less than 5.0 mg/l.

The second sentence should read "Per the Bond Falls Settlement Agreement....run-of-river mode from April 15 through June 15". The Forest Service agrees that monitoring is not necessary below Victoria Dam.

Response: As described in Section 2 of the Water Quality Monitoring Plan, UPPCO will consult with members of the Bond Falls Implementation Team to site the exact monitoring locations. The locations recommended by the USFS have been noted and will be considered. Comments on the final paragraph have been noted, and the plan has been amended accordingly.

Comment: Additionally, the Forest Service would like UPPCO to take temperature and DO profile measurements at Victoria Dam and Bond Falls Reservoir. These profiles shall be taken near the intake(s) on a monthly basis June through September. Measurements shall be made at 0.5-meter increments or less. Temperature and DO measurements shall be replicated at the surface and at the bottom with a replicate measuring system, such as a Winkler analysis if a probe is used for the profiling. If replicate errors are greater than 1 mg/l for DO or 1.8°F for temperature, then the measurement system shall be evaluated, corrective actions shall be taken, and the measurements shall be repeated. Secchi disk depth measurements shall be made at the same time as the profiling. Report of the profile measurements shall be included in the annual report.

Response: Comment noted. The plan has been amended to state the following:

At the Victoria and Bond Falls Developments, vertical temperature and dissolved oxygen profiles will be performed monthly from June 1 to September 30. Secchi disk depth measurements will be made at the same time as the profile. The profile will be performed from a safe and easily accessible location on the top of the dam(s). When secchi disk readings are

taken, weather conditions will be noted on field sheets (time of day, cloud cover, wave conditions, etc.).

Profiles will be performed at 0.5 meter intervals using a hand held dissolved oxygen monitoring device (manufactured by YSI, Inc. or equivalent). Temperature and dissolved oxygen measurements will be replicated by using a second hand held device at both surface and bottom of the basin. In the event that replicate analyses differ by more than 1.0 mg/L D.O or 1.8°F (1°C), the meters will be recalibrated and the profile will be repeated. Results of the profiles and secchi disk readings will be included in the annual report.

Comment: Monitoring Equipment and Quality Assurance

If DO calibration drift is not within 1.0 mg/l at least 70% of the time, UPPCO should consult with the resource agencies to determine a more frequent monitoring schedule.

Response: UPPCO agrees that after the first year of monitoring, an evaluation should be performed to determine if calibration drift is a problem. An evaluation should be made to determine if calibration drift is dependent on the monitoring location (if debris or other environmental conditions are effecting the monitoring results) or equipment maintenance/error and if monitoring should occur on a more frequent schedule. The plan has been amended to state the following:

"At the time the monitoring equipment is removed from monitoring, a post calibration will be performed per the manufacturer instructions to determine loss of calibration, with a goal of less than 1.0 mg/l drift or error at least 70% of the time over the monitoring season. UPPCO shall consult with the resource agencies to determine the cause and downstream extent of deviations from water quality standards and determine appropriate corrective action."

Comment: Annual Monitoring Results – Reports

If problems are found after reviewing first year data, the Implementation Team should review the water quality monitoring plan to determine if changes are needed.

Response: UPPCO agrees with USFS's statement. Comment noted.

Comment: Please also include the following information on the annual report:

- Calculated monthly average temperature
- An upstream/downstream (where applicable) comparison of the DO and temperature for the entire monitoring season, including the frequency and magnitude of any values that exceed or violate the standard at each station. This data should be presented in a graph that clearly identifies the state standard.
- An evaluation of the relationship between any observed temperature or DO violations and other environmental factors that were monitored and operating characteristics of the dam.
- Hourly data from the entire monitoring season should be presented in one excel worksheet and available electronically.

Response: The plan has been amended to reflect the request for information, with the exception of the upstream/downstream comparison. Due to the distances between monitoring locations (even on the same branch of river), a comparison of the results would not be practical. Data for the entire monitoring year will be graphed for each monitoring location, with the water quality standard clearly identified.

Comment: Monitoring Schedule Amendments

- After the first sentence of the first paragraph add: "The licensee shall bear the cost of any operational measures to improve water quality."
- Before the last sentence of the first paragraph add: "All water quality mitigation measures shall be developed and implemented in consultation with the MDEQ and other members of the Implementation Team."
- At the end of the first paragraph add: "These plans must be developed in consultation with the MDEQ and Implementation Team."

Response: Comments noted. The plan has been amended accordingly.

Comment: Lastly, since the Mitigation Enhancement Fund funds the water quality monitoring, cost projections for monitoring should be provided to the Implementation Team prior to implementation.

Response: The water quality monitoring plan has been developed to define the process and procedures to be implemented for successful water quality monitoring. Cost estimates are not part of the monitoring process or procedure and will not be covered in the water quality monitoring plan. Cost estimates for annual water quality monitoring have been provided to members of the Bond Falls Implementation Team.

Mark W Metcalf - Bond Falls Hydroelectric Project

Page 1

From: Mark W Metcalf
To: Deephouse, Bill; Schramm, Jim
Date: 12/12/03 1:01PM
Subject: Bond Falls Hydroelectric Project

Gentlemen,

Attached to this e-mail is a cover letter and a draft of the Water Quality Monitoring plan for the Bond Falls Hydroelectric Project for your review and comment. The water quality plan that was mailed out has maps of the proposed monitoring locations attached. I do not have the maps electronically, and if you would like a copy of the maps, I can mail or fax a copy to you. If you have any problems opening the attachments, please feel free to contact me at (920) 433-1833.

Sincerely,

Mark Metcalf
Environmental Consultant\Chemist
Wisconsin Public Service Corp.
920-433-1833
mmetcal@wpsr.com

CC: Puzen, Shawn C

December 12, 2003

FERC Project No. 1864

Mr. Jim Schramm
Michigan Hydro Relicensing Coalition
P.O. Box 828
Pentwater, MI 49449-0828

Dear Mr. Schramm:

Draft Water Quality Monitoring Plan for the Bond Falls Hydroelectric Project
(FERC Project No. 1864)

Upper Peninsula Power Company (UPPCO) is pleased to submit the Draft Water Quality Management Plan for your review and comment.

The Water Quality Monitoring Plan addresses the requirements listed in Article 409 of the Order Approving Settlement and Issuing New License, dated August 20, 2003. The plan includes provisions for monitoring water temperature and dissolved oxygen (DO) at several locations within the Bond Falls Hydroelectric Project. A copy of the Draft Water Quality Monitoring Plan is enclosed for your review and comment.

The following individuals are receiving a copy of the proposed plan for comments:

Ms. Jessica Mistak – Michigan Department of Natural Resources
Mr. John Suppnick – Michigan Department of Environmental Quality
Mr. Mike Donofrio – Keweenaw Bay Chippewa Tribe
Ms. Marcia Kimball – U.S. Department of the Interior
Mr. Robert Evans – U.S. Forest Service
Mr. Bob Martini – Wisconsin Department of Natural Resources

Please review the enclosed plans and make any comments or suggestions as soon as possible, but before January 9, 2004. Should you have any questions or concerns, please do not hesitate to call me at (920) 433-1833. Thank you for your time and consideration.

Sincerely,

Mark W. Metcalf
Environmental Consultant
Telephone: (920) 433-1833

Enc.

Cc: Mr. Bill Deephouse - MHRC

From: "Bill Deephouse" <riverkpr@up.net>
To: "Mark W Metcalf" <MMETCAL@wpsr.com>
Date: 12/30/03 12:23PM
Subject: Draft Water Quality Monitoring Plan Comments - Bond Falls Project - FERC License No. 1864

Mark - Attached in Word format are the Michigan Hydro Relicensing Coalition comments regarding the Water Quality Plan you recently sent. Thanks for the opportunity to offer our input on this matter.

I would like to request a copy of the map of the proposed water quality monitoring locations mentioned in the last paragraph on page 2 as Appendix A. I was unable to print out a copy in the electronic format you sent me. Thanks in advance.

If you have any questions, please contact me via email or phone at 906-482-6607.

Bill Deephouse

CC: "Robert A. Evans" <raevans@fs.fed.us>, "Mark Fedora" <mfedora@fs.fed.us>, "Jim Schramm" <JDSchramm@OCEANA.NET>, "Jessica Mistak" <mistakjl@michigan.gov>, "Burr Fisher" <burr_fisher@fws.gov>, "Mike Donofrio" <mdonofri@up.net>, "John Suppnick" <Suppnicj@state.mi.us>



Upper Peninsula Power Company

(a subsidiary of WPS Resources Corporation)

700 N. Adams Street

P.O. Box 19001

Green Bay, WI 54307-9001

12/30/03

Mr. Bill Deephouse
Michigan Hydro Relicensing Coalition
1210 E. 5th St.
Houghton, MI 39931

Dear Mr. Deephouse,

Enclosed with this letter are copies of maps of the proposed monitoring locations for the Bond Falls Draft Water Quality Monitoring Plan. For your convenience, I have drawn in the proposed river sections and highlighted the approximate monitoring locations. If you have any questions or would like more information, please feel free to call me at (920) 433-1833 or e-mail me at mmetcal@wpsr.com. Thank you for your time.

Sincerely,

Mark Metcalf
Environmental Consultant
Telephone (920) 433-1833

Enc.

Michigan Hydro Relicensing Coalition
1210 E. Fifth Avenue
Houghton, Michigan 49931

December 30, 2003

Mr. Mark Metcalf, Environmental Consultant/Chemist
Upper Peninsula Power Company
P.O. Box 19001
Green Bay, Wisconsin 54307-9001

Re: Bond Falls Hydro Project No. 1864
Draft Water Quality Monitoring Plan Comments

Dear Mr. Metcalf:

I represent the Michigan Hydro Relicensing Coalition (MHRC) as an ex-officio member of the Bond Falls Implementation Team. We have reviewed UPPCO's draft Water Quality Monitoring Plan dated December 2003 and have the following comments:

1. Requirements – Temperature and Dissolved Oxygen

1.B. Bond Falls Development

Per 4.1.4 in the Settlement Agreement (SA), the dissolved oxygen (DO) downstream of both the Victoria Powerhouse and Bond Falls Dams shall not be less than 7.0 mg/l. Although FERC has written Article 408 to include the Victoria Powerhouse temperature limits under the coldwater (trout) regulations, they mistakenly include the DO regulations for the Powerhouse with the Cisco, Bergland and Victoria dams under the coolwater (nontrout) regulations of 5.0 mg/l. We contend that the minimum DO concentration downstream of the Victoria Powerhouse is intended to be 7.0 mg/l. This is based upon the Michigan DNR list of Designated Trout Streams. A discussion of the exact description of which reaches of the various Ontonagon River branches are so designated (with more restrictive, colder temperature requirements and a higher minimum DO of 7.0 mg/l) may be useful in coming to agreement on this matter.

Additionally, we recommend that DO concentrations be monitored from May 1 through October 31 in order to assure that no periods of very low flow conditions or high temperatures are missed. We feel it is better to take a conservative approach to the DO and temperature monitoring requirements for the first three years of this 40 year license.

1.C. Continuous Monitoring – Reporting Deviations

We request that UPPCO notify all members of the Bond Falls Implementation Team (BFIT) of any deviations from water quality standards.

2. Temperature and Dissolved Oxygen Monitoring Locations and Schedule

MHRC looks forward to working with UPPCO in the spring 2004 in selecting monitoring locations. Fieldwork will be required to determine proper locations.

2.C. M.Br. Ontonagon River below Bond Falls Dam

Temperature and DO monitoring equipment located at the walkway below Bond Falls may be an attractive nuisance to the many tourists visiting the falls. A location further downstream about 0.75 mile at the first cabin may be more secure.

2.D. W.Br. Ontonagon River below Bergland Dam

MHRC recommends a monitoring location in the vicinity of USGS gauge 04036000 about 0.4 mile downstream from the Bergland Dam

2.E. W.Br. Ontonagon River below Victoria Dam

MHRC agrees that monitoring below Victoria Dam is unnecessary. In the second paragraph, the first sentence is garbled – it contains the phrase “to be less” twice in it. This should be clarified. Also, the reference to SA 3.1.2.3 should be changed to “UPPCO will operate Victoria Powerhouse in the run-of-river mode from April 15 through June 15.”

A last item concerns the need for temperature-oxygen profiles at both Victoria Dam and Bond Falls Reservoir. MHRC requests that such profiles be performed on a monthly basis from May through October. Measurements should be taken at one-foot intervals. Profile locations should be in the vicinity of the outlets to both the M.Br. Ontonagon River and the Copper Flume in Bond Falls Basin as well as near the penstock intake at the Victoria Reservoir.

3. Monitoring Equipment and Quality Assurance

We have observed portable water quality monitoring equipment at other hydroelectric projects that yielded questionable data. Biofouling of the DO monitors was the primary problem and resulted, we feel, from inadequate or maintenance that did not take place frequently enough. We recommend for the first year's monitoring that instruments be cleaned and calibrated weekly to hopefully avoid this problem. Michigan DEQ – Surface Water Quality Division personnel have additional recommendations regarding improved water quality data collection.

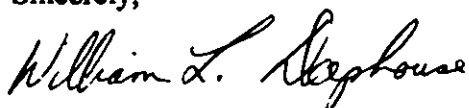
4. Annual Monitoring Results – Reports

MHRC requests that the BFIT receive hourly data for both DO and temperature from the entire monitoring season in electronic format. We also request the BFIT receive a hard copy of the reports explaining how hydro operations may have caused or mitigated any observed exceedances. We request that such reports be more descriptive than just including data and graphs.

MHRC requests that annual estimated cost for water quality monitoring be provided to the BFIT as well as how the successful consultant is determined. We would like to discuss what the requirements or standards will be for the successful bidder.

We appreciate the opportunity to comment on this matter. If you have any questions, please don't hesitate to contact me.

Sincerely,



William L. Deephouse
906-482-6607
riverkpr@up.net

CC: James Schramm, MHRC
Mike Donofrio, KBIC
Robert Evans, USFS
Mark Fedora, USFS
Burr Fisher, USFWS
Jessica Mistak, MDNR
John Suppnick, MDEQ

Response to Comments by the Michigan Hydro Relicensing Coalition

Comment: 1.B. Bond Falls Development

Per 4.1.4 in the Settlement Agreement (SA), the dissolved oxygen (DO) downstream of both the Victoria Powerhouse and Bond Falls Dams shall not be less than 7.0 mg/l. Although FERC has written Article 408 to include the Victoria Powerhouse temperature limits under the coldwater (trout) regulations, they mistakenly include the DO regulations for the Powerhouse with the Cisco, Bergland and Victoria dams under the cool water (nontROUT) regulations of 5.0 mg/l. We contend that the minimum DO concentration downstream of the Victoria Powerhouse is intended to be 7.0 mg/l. This is based upon the Michigan DNR list of Designated Trout Streams. A discussion of the exact description of which reaches of the various Ontonagon River branches are so designated (with more restrictive, colder temperature requirements and a higher minimum DO of 7.0 mg/l) may be useful in coming to agreement on this matter.

Response: The Settlement Agreement states the dissolved oxygen level below the Victoria Powerhouse shall not be less than 7.0 mg/l. However, the bypassed section of river immediately upstream of the confluence of the Victoria Powerhouse tailrace and the bypassed section has a 5.0 mg/L dissolved oxygen limit. The monitoring location below the Victoria Powerhouse should be in a location that represents the mixing of the bypass flow and turbine flow. UPPCO should not be required to meet the higher, 7.0mg/L dissolved oxygen concentration standard, when part of the inflow is not required to meet the same standard. Furthermore, due to the configuration of the intake structure at the Victoria Reservoir, when the reservoir stratifies in the summer months, colder, lower dissolved oxygen water would be drawn through the intake for use at the powerhouse, making the 7.0 mg/L limit more difficult to obtain without some operational or structural modifications to the facility. UPPCO believes that the 5.0 mg/L limit written in the license should be the dissolved oxygen standard below the Victoria Powerhouse. However, UPPCO will strive to attain the 7.0 mg/L dissolved oxygen concentration, and will report any observed incidents to the Water Division of the MDEQ and members of the Implementation Team.

Comment: Additionally, we recommend that DO concentrations be monitored from May 1 through October 31 in order to assure that no periods of very low flow conditions or high temperatures are missed. We feel it is better to take a conservative approach to the DO and temperature monitoring requirements for the first three years of this 40 year license.

Response: UPPCO proposed monitoring for dissolved oxygen from June 1 through September 30 of each monitoring year based upon monitoring requirements at other FERC licensed Projects: Grand Rapids Hydroelectric Project (FERC No. 2433) and Dead River Hydroelectric Project (FERC No. 10855). The months of June through September are the critical months of high temperatures and low flow. When considering the average monthly temperatures for Michigan's Upper Peninsula during the months of May and October, extended periods of high temperatures, which can lead to low dissolved oxygen concentrations in water, are unlikely. Other members of the Implementation Team did not comment on adjusting the monitoring season, therefore, UPPCO will monitor for dissolved oxygen and temperature during the months of June through September.

Comment: We request that UPPCO notify all members of the Bond Falls Implementation Team (BFIT) of any deviations from water quality standards."

Response: UPPCO has modified the Plan to state the following:

In the event of deviations from the water quality standards, UPPCO shall the Water Division of the Michigan Department of Environmental Quality (MDEQ) and members of the Bond Falls Implementation Team within one working day of the observation of the incident, and take all reasonable steps necessary to ensure that compliance with the water quality limits are achieved, consistent with the water quality mitigation requirements of Article 409.

Comment: MHRC looks forward to working with UPPCO in the spring 2004 in selecting monitoring locations. Fieldwork will be required to determine proper locations.

2.C. M.Br. Ontonagon River below Bond Falls Dam

Temperature and DO monitoring equipment located at the walkway below Bond Falls may be an attractive nuisance to the many tourists visiting the falls. A location further downstream about 0.75 mile at the first cabin may be more secure.

2.D. W.Br. Ontonagon River below Bergland Dam

MHRC recommends a monitoring location in the vicinity of USGS gauge 04036000 about 0.4 mile downstream from the Bergland Dam"

Response: As described in Section 2 of the Water Quality Monitoring Plan, UPPCO will consult with members of the Bond Falls Implementation Team to site the exact monitoring locations. The locations recommended by the MHRC have been noted and will be considered.

Comment: **2.E. W.Br. Ontonagon River below Victoria Dam**

MHRC agrees that monitoring below Victoria Dam is unnecessary. In the second paragraph, the first sentence is garbled – it contains the phrase "to be less" twice in it. This should be clarified. Also, the reference to SA 3.1.2.3 should be changed to "UPPCO will operate Victoria Powerhouse in the run-of-river mode from April 15 through June 15."

Response: Comment noted. The plan has been amended to reflect the clarifications.

Comment: A last item concerns the need for temperature-oxygen profiles at both Victoria Dam and Bond Falls Reservoir. MHRC requests that such profiles be performed on a monthly basis from May through October. Measurements should be taken at one-foot intervals. Profile locations should be in the vicinity of the outlets to both the M.Br. Ontonagon River and the Copper Flume in Bond Falls Basin as well as near the penstock intake at the Victoria Reservoir.

Response: As previously stated, UPPCO believes that the months of June through September are the critical months for dissolved oxygen monitoring due to periods of high temperatures and low flow. UPPCO will perform temperature-oxygen profiles at the Victoria and Bond Falls

Dams on a monthly basis From June through September. Specific information on the profiles and reporting of the data has been incorporated into the plan according to MDNR, USFS, and MDEQ recommendations.

Comment: We have observed portable water quality monitoring equipment at other hydroelectric projects that yielded questionable data. Biofouling of the DO monitors was the primary problem and resulted, we feel, from inadequate or maintenance that did not take place frequently enough. We recommend for the first year's monitoring that instruments be cleaned and calibrated weekly to hopefully avoid this problem. Michigan DEQ – Surface Water Quality Division personnel have additional recommendations regarding improved water quality data collection.

Response: UPPCO procedures for water quality monitoring require the installation of clean, calibrated monitoring equipment on a bi-weekly basis. At the time of bi-weekly maintenance, a monitor that has not been in use during the previous two week period is deployed at the monitoring location, and the monitor that had been in use is removed for data down loading, post deployment calibration (for the determination of calibration drift), and maintenance. UPPCO has used this maintenance schedule at other monitoring locations and it has been accepted by MDNR and MDEQ.

Comment: MHRC requests that the BFIT receive hourly data for both DO and temperature from the entire monitoring season in electronic format. We also request the BFIT receive a hard copy of the reports explaining how hydro operations may have caused or mitigated any observed exceedances. We request that such reports be more descriptive than just including data and graphs.

Response: Comment noted. The plan has been modified to state the following:

All temperature and corrected dissolved oxygen data collected will be compiled and summarized in an annual report submitted to the Commission, Water Division of the MDEQ, and to members of the Bond Falls Implementation Team. A hard copy of the report will be filed with the Commission, and electronic copies of the data will be provided to the MDEQ and Bond Falls Implementation Team members in Excel format. A report will be submitted within 30 days of the completion of the annual monitoring period. For each continuous monitoring location, the following information will be provided:

- A. A summary of all data collected with a determination of the monthly minimum, maximum, and average temperature and dissolved oxygen concentration at each monitoring location. All DO data corrected for calibration drift and raw temperature data will be presented in tabular and graphical form. All data gaps, if they occur, shall be explained.
- B. A comparison of temperature and DO data with the state water quality standard will be presented in graphical form. Any deviations from the water quality standard shall be explained, including environmental factors and operational conditions that may have contributed or mitigated water quality conditions.

C. All quality assurance data.

D. A summary of the frequency and magnitude of any values that exceed the limits at each station.

Comment: MHRC requests that annual estimated cost for water quality monitoring be provided to the BFIT as well as how the successful consultant is determined. We would like to discuss what the requirements or standards will be for the successful bidder.

Response: The water quality monitoring plan has been developed to define the process and procedures to be implemented for successful water quality monitoring. Expense estimates are not part of the monitoring procedure and will not be covered in the water quality monitoring plan. Cost estimates for annual water quality monitoring have been provided to members of the Bond Falls Implementation Team.



Upper Peninsula Power Company

(a subsidiary of WPS Resources Corporation)

700 N. Adams Street

P.O. Box 19001

Green Bay, WI 54307-9001

December 3, 2003

FERC Project No. 1864

Mr. Mike Donofrio
Keweenaw Bay Chippewa Tribe
HC1
P.O. Box 9710
L'Anse, MI 49926-9710

Dear Mr. Donofrio:

Draft Water Quality Monitoring Plan for the Bond Falls Hydroelectric Project
(FERC Project No. 1864)

Upper Peninsula Power Company (UPPCO) is pleased to submit the Draft Water Quality Management Plan for your review and comment.

The Water Quality Monitoring Plan addresses the requirements listed in Article 409 of the Order Approving Settlement and Issuing New License, dated August 20, 2003. The plan includes provisions for monitoring water temperature and dissolved oxygen (DO) at several locations within the Bond Falls Hydroelectric Project. A copy of the Draft Water Quality Monitoring Plan is enclosed for your review and comment.

The following individuals are receiving a copy of the proposed plan for comments:

Ms. Jessica Mistak – Michigan Department of Natural Resources
Mr. Burr Fisher – U.S. Fish & Wildlife Service
Mr. John Supnick – Michigan Department of Environmental Quality
Ms. Marcia Kimball – U.S. Department of the Interior
Mr. Robert Evans – U.S. Forest Service
Mr. Bob Martini – Wisconsin Department of Natural Resources

Please review the enclosed plans and make any comments or suggestions as soon as possible, but before January 9, 2004. Should you have any questions or concerns, please do not hesitate to call me at (920) 433-1833. Thank you for your time and consideration.

Sincerely,

A handwritten signature in cursive script that reads 'Mark Metcalf'.

Mark W. Metcalf
Environmental Consultant
Telephone: (920) 433-1833

Enc.



Upper Peninsula Power Company

(a subsidiary of WPS Resources Corporation)

700 N. Adams Street

P.O. Box 19001

Green Bay, WI 54307-9001

December 3, 2003

FERC Project No. 1864

Mr. Burr Fisher
US Fish & Wildlife Service
East Lansing Field Office
2651 Coolidge Rd.
East Lansing, MI 48823

Dear Mr. Fisher:

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(FERC Project No. 1864)

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Mr. Robert Evans – U.S. Forest Service
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Sincerely,

Mark W. Metcalf
Environmental Consultant
Telephone: (920) 433-1833

Enc.

Cc: Mr. Craig Czarniecki - FWS



Upper Peninsula Power Company

(a subsidiary of WPS Resources Corporation)

700 N. Adams Street

P.O. Box 19001

Green Bay, WI 54307-9001

December 3, 2003

FERC Project No. 1864

Ms. Marcia Kimball
US Dept. of the Interior
Office of the Field Solicitor
1 Federal Dr.
Room 686
Fort Snelling, MN 55111-4030

Dear Ms. Kimball:

Draft Water Quality Monitoring Plan for the Bond Falls Hydroelectric Project
(FERC Project No. 1864)

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Mark W. Metcalf
Environmental Consultant
Telephone: (920) 433-1833

Enc.



Upper Peninsula Power Company

(a subsidiary of WPS Resources Corporation)

700 N. Adams Street

P.O. Box 19001

Green Bay, WI 54307-9001

December 3, 2003

FERC Project No. 1864

Mr. Bob Martini
Wisconsin Department of Natural Resources
107 Sutliff Ave.
Rhinelander, WI 54501

Dear Mr. Martini:

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(FERC Project No. 1864)

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Sincerely,

Mark W. Metcalf
Environmental Consultant
Telephone: (920) 433-1833

Enc.

The Following Agencies Did Not Respond With Comments:

U.S. Fish & Wildlife Service

U.S. Department of the Interior

Wisconsin Department of Natural Resources

Keweenaw Bay Chippewa Tribe