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FEDERAL ENERGY
REGULATORY COMMISSION

January 31, 2002

David Boergers, Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, D.C. 20426

RE: Way Dam Hydroelectric Project and Michigamme Reservoir- FERC No. 1759-036
Hemlock Falls Hydroelectric Project - FERC No. 2074-007
Peavy Falls Hydroelectric Project - FERC No. 11830-000
Lower Paint Hydroelectric Project - FERC No. 2072-008
Michigamme Falls Hydroelectric Project - FERC No. 2073-008
Twin Falls Hydroelectric Project - FERC No. 11831-000
Kingsford Hydroelectric Project - FERC No. 2131-020
Big Quinnesec Falls Hydroelectric Project- FERC No. 1980-009

Articles 407 (Project Nos. 2072, 11830); 408 (Project Nos. 2073, 2074, 2131, 11831); and 409 (Project Nos. 1759, 1980) -Year 2001 - Water Quality Monitoring Report

Wisconsin Electric is hereby filing one original and eight additional copies of the results of the quarterly water chemistry sampling for the above identified Projects performed during 2002 in partial fulfillment of the monitoring plans approved and incorporated in the articles identified above for each of the projects.

The Commission issued new licenses for the above Projects on January 12, 2001 and by Order issued March 9, 2001 clarified certain Water Quality Monitoring requirements.

The Plan as approved by FERC order dated January 12, 2001 included the following three components:

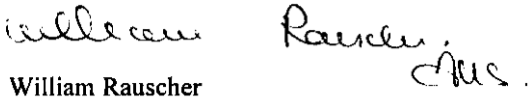
- 1) **Continuous Water Quality Monitoring of temperature and Dissolved Oxygen (D.O.)**
 - From June 1, to September 30 of each year
 - For two years starting within one year of license issuance (by choice, the licensee commenced water quality monitoring in 2001);
 - Nine monitoring locations :
 - * Six stations for temperature and dissolved oxygen; three stations for temperature only.
 - Monitoring results are to be filed no later than November 30th, of each year.
- 1) **Flowage Monitoring Plan**
 - Measurements to be made at 0.5 meter intervals in the deepest part of each flowage;
 - Measurements to be taken during February, April, May, September and October (one vertical profile measurement during each month) as well as during the months of June, July and August (Two measurements per month spaced at approximate two-week intervals) during each of the first two years of the monitoring program;
 - Vertical profile measurements are to be filed no later than November 30th of each year.
- 3) **Water Chemistry Monitoring**
 - Samples to be collected in the tailraces of the above Projects
 - Samples are collected quarterly (May, July, October, December)
 - Results are to be filed no later than March 31st of the following year

The results of Plan Components 1 and 2 were filed with the FERC in correspondence dated November 28, 2001. We are filing the results for Component 3 at this time. The results for the Water Quality Monitoring Plan-required parameters are provided by station and by month in the Tables contained in Appendix One of this filing.

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

Please call me at (414) 221-2413, if you have questions on this matter.

Sincerely,

 William Rauscher

Manager, Hydroelectric Operations

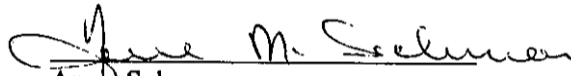
Enclosures

cc: Mr. Thomas Meronek, WDNR w/diskette
Mr. Kurt Newman, MDNR w/ diskette
Mr. Jim Fossum, USFWS
Mr. James Grant, MDEQ

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, February 01, 2002.



Annie Salmona
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Appendix 1

Water Chemistry Monitoring Results- Year 2001

WAY DAM AND MICHIGAMME RESERVOIR- FERC NO. 1759-036

HEMLOCK FALLS HYDROELECTRIC PROJECT- FERC NO. 2074-007

PEAVY FALLS HYDROELECTRIC PROJECT - FERC NO. 11830-000

LOWER PAINT HYDROELECTRIC PROJECT - FERC NO. 2072-008

MICHIGAMME FALLS HYDROELECTRIC PROJECT- FERC NO. 2073-008

TWIN FALLS HYDROELECTRIC PROJECT- FERC NO. 11831-000

KINGSFORD HYDROELECTRIC PROJECT- FERC NO. 2131-020

BIG QUINNESEC FALLS HYDROELECTRIC PROJECT – FERC NO. 1980-009

February 1, 2002

Water Chemistry Measurements for Upper Menominee River Basin Projects

May-01

Parameter	Units	Minimum Detection Limits	Michigamme Reservoir tailrace (Way Dam)	Hemlock Tailrace	Hemlock Tailrace QC Replicate	Paint Canal Tailrace	Peavy Falls Tailrace	Michigamme Falls Tailrace	Twin Falls Tailrace	Kingsford Tailrace	Big Quinnesec Tailrace
Field Temperature	Degrees C	0.1	13.5	15.2	scratched	16.1	15.3	14.5	15.2	15.4	15.0
Field Conductivity	umhos	0	65	68	scratched	116	93	89	121	130	130
Field pH	Units	0.1	7.2	7.2	scratched	6.6	7.3	7.2	7.3	7.4	7.3
Dissolved Oxygen- Field	mg/l	0.1	9.5	10.0	scratched	10.6	9.8	9.5	9.6	9.7	9.4
Alkalinity as CaCO3	ppm	2.5	25	26	26	52	39	37	49	54	180
Total Suspended Solids	ppm	1	2	1	<	4	1	1	<	1	3
Total Dissolved Solids	ppm	36	<	68	64	94	82	70	97	98	100
Sulfate	ppm	0.08	5.5	5.4	5.4	6.0	5.9	6.0	9.0	8.5	8.2
Color	Color Units	1	40	45	45	60	50	50	40	50	50
Ammonia Nitrogen	ppm	0.04	0.24	0.34	0.096	0.57	0.29	0.18	0.11	0.085	0.23
Total Kjeldahl Nitrogen	ppm	0.28	0.36	0.39	0.41	0.51	0.42	0.46	0.46	0.44	0.41
Total Phosphorus	ppm	0.0026	0.15	0.017	0.065	0.080	0.024	0.026	0.027	0.030	0.042
Total Organic Carbon	ppm	2.8	18	17	10	13	16	8.5	16	15	16
Chlorophyll a	mg/m3	0.1	4.4	2.5	1.3	2.4	3.0	<	1.3	1.4	4.5
Dissolved Calcium	ppm	0.076	8.2	8.2	8.2	16	12	11	15	16	15
Dissolved Magnesium	ppm	0.052	3.1	3.3	3.3	5.6	4.6	4.4	6.3	6.9	6.6
Total Hardness as CaCO3	ppm	1	33	34	34	63	49	46	63	68	65
Nitrate as N	ppm	0.15	0.25	0.24	0.25	<	0.20	0.22	0.21	0.20	0.23
Nitrite as N	ppm	0.14	<	<	<	<	<	<	<	<	<
Secchi	m										

Secchi was not taken, tailrace only 3 ft deep or less

Water Chemistry Measurements for Upper Menominee River Basin Projects

July-01

Parameter	Units	Minimum Detection Limits	Michigamme Reservoir tailrace (Way Dam)	Michigamme Reservoir (Way Dam) QC replicate	Hemlock Canal Tailrace	Paint Canal Tailrace	Peavy Falls Tailrace	Michigamme Falls Tailrace	Twin Falls Tailrace	Kingsford Tailrace	Big Quinnesec Tailrace
Field Temperature	Degrees C	0.1	18.9	scratched	20.3	22.7	21.0	21.6	22.8	22.8	22.9
Field Conductivity	umhos	0	103	scratched	102	188	114	114	168	174	182
Field pH	Units	0.1	7.0	scratched	7.2	7.9	7.3	7.2	7.6	7.6	7.5
Dissolved Oxygen- Field	mg/l	0.1	5.2	scratched	7.3	8.3	6.9	7.0	7.7	7.4	7.8
Alkalinity as CaCO3	ppm	2.5	43	43	43	84	47	47	71	76	76
Total Suspended Solids	ppm	1	1	1	<	<	<	<	1	1	1
Total Dissolved Solids	ppm	36	62	76	88	118	84	82	114	110	116
Sulfate	ppm	0.08	5.0	4.9	4.9	7.0	5.2	5.3	11	9.1	9.3
Color	Color Units	1	40	40	35	25	30	35	35	30	35
Ammonia Nitrogen	ppm	0.06	0.49	0.47	<	<	<	<	0.400	<	0.50
Total Kjeldahl Nitrogen	ppm	0.097	0.51	0.44	0.47	0.45	0.35	0.38	0.49	0.49	0.66
Total Phosphorus	ppm	0.0026	0.033	0.017	0.015	0.026	0.043	0.014	0.082	0.020	0.019
Total Organic Carbon	ppm	0.34	8.7	9.0	10	6.8	9.5	8.8	8.3	8.8	9.3
Chlorophyll a	mg/m3	0.1	0.9	<	3.9	2.2	3.8	3.0	2.5	2.0	1.5
Dissolved Calcium	ppm	0.076	12	12	11	22	13	13	19.0	20.0	19
Dissolved Magnesium	ppm	0.052	4.9	4.9	4.9	8.6	5.2	5.2	8.3	9.0	8.8
Total Hardness as CaCO3	ppm	1	50	50	48	90	54	54	82	87	84
Nitrate as N	ppm	0.13	0.17	0.16	0.23	0.13	0.16	<	0.17	0.15	0.16
Nitrite as N	ppm	0.077	<	<	0.16	<	<	0.16	0.23	<	<
Secchi	m										

Secchi was not taken, tailrace only 3 ft deep or less

Water Chemistry Measurements for Upper Menominee River Basin Projects

October-01

Parameter	Units	Minimum Detection Limits	Michigamme Reservoir tailrace (Way Dam)	Hemlock Tailrace	Paint Canal Tailrace	Peavy Falls Tailrace	Michigamme Falls Tailrace	Michigamme Falls QC replicate	Twin Falls Tailrace	Kingsford Tailrace	Big Quinnesec Tailrace
Field Temperature	Degrees C	0.1	11.4	12.3	9.6	11.7	12.1	scratched	11.6	11.3	11.9
Field Conductivity	umhos	0	118	119	182	145	134	scratched	196	197	204
Field pH	Units	0.1	8.2	8.2	8.2	8.0	8.0	scratched	8.2	8.2	8.2
Dissolved Oxygen- Field	mg/l	0.1	10.8	10.5	11.4	9.7	9.2	scratched	9.7	9.8	9.9
Alkalinity as CaCO3	ppm	2.5	52	53	83	64	61	61	79	88	89
Total Suspended Solids	ppm	1	2.0	<	<	1.0	<	1.0	<	3	<
Total Dissolved Solids	ppm	36	80	70	68	80	72	82	106	106	136
Sulfate	ppm	0.2	5.7	5.5	7.9	6.2	5.8	12	12	11	12
Color	Color Units	1	35	26	25	25	30	25	20	25	20
Ammonia Nitrogen	ppm	0.06	<	0.087	0.078	0.12	0.074	0.065	0.095	0.061	0.11
Total Kjeldahl Nitrogen	ppm	0.097	0.46	0.37	0.38	0.40	0.46	0.41	0.42	0.52	0.45
Total Phosphorus	ppm	0.0026	0.017	0.022	0.023	0.017	0.014	0.056	0.018	0.016	0.019
Total Organic Carbon	ppm	0.34	18	7.1	4.9	7.1	9.2	6.3	8.1	8.7	4.9
Chlorophyll a	mg/m3	0.1	0.6	0.2	1.3	<	2.9	2.5	6.5	17.7	<
Dissolved Calcium	ppm	0.076	14	14	22	17	16	16	21	23	23
Dissolved Magnesium	ppm	0.052	5.9	5.9	8.6	6.9	6.5	6.7	9.3	10	11
Total Hardness as CaCO3	ppm	1	59	59	90	71	67	68	91	99	100
Nitrate as N	ppm	0.13	<	<	<	<	<	<	<	<	<
Nitrite as N	ppm	0.077	0.090	<	<	<	<	<	<	<	<
Secchi	m										

Secchi was not taken, tailrace only 3 ft deep or less

Water Chemistry Measurements for Upper Menominee River Basin Projects

December-01

Parameter	Units	Minimum Detection Limits	Michigamme Reservoir tailrace (Way Dam)	Hemlock Tailrace	Hemlock Tailrace QC Replicate	Paint Canal Tailrace	Peavy Falls Tailrace	Michigamme Falls Tailrace	Twin Falls Tailrace	Kingsford Tailrace	Big Quinnesec Tailrace
Field Temperature	Degrees C	0.1	3.5	3.4	scratched	1.4	3.5	3.7	3.3	3.0	2.8
Field Conductivity	umhos	0	126	130	scratched	143	141	139	186	183	183
Field pH	Units	0.1	8.2	8.3	scratched	8.2	8.1	8.2	8.3	8.2	8.2
Dissolved Oxygen- Field	mg/l	0.1	12.8	12.6	scratched	13.2	12.6	11.5	11.8	11.9	12.3
Alkalinity as CaCO3	ppm	2.5	57	60	60	65	65	65	81	82	83
Total Suspended Solids	ppm	1	<	<	<	<	<	<	<	<	<
Total Dissolved Solids	ppm	36	86	90	88	94	82	96	106	120	131
Sulfate	ppm	0.2	6.4	6.6	6.7	7.6	6.7	6.8	13	11	11
Color	Color Units	1	10	15	15	20	15	25	20	20	15
Ammonia Nitrogen	ppm	0.06	0.12	0.083	0.087	0.064	0.064	0.064	0.064	0.064	0.070
Total Kjeldahl Nitrogen	ppm	0.097	0.35	0.35	0.37	0.40	0.30	0.43	0.22	0.31	0.34
Total Phosphorus	ppm	0.0026	0.026	0.025	0.046	0.033	0.032	0.081	0.025	0.027	0.036
Total Organic Carbon	ppm	0.34	7.9	7.5	8.7	9.3	8.0	7.9	6.9	8.5	8.7
Chlorophyll a	mg/m3	0.2	3	3	2	2	2	2	4	1.6	2
Dissolved Calcium	ppm	0.076	15	16	15	18	17	17	23	21	22
Dissolved Magnesium	ppm	0.052	6.3	6.7	6.8	6.8	6.8	7.1	9.8	9.4	9.8
Total Hardness as CaCO3	ppm	1	63	68	65	73	70	72	98	91	95
Nitrate as N	ppm	0.13	<	<	<	<	<	<	<	<	<
Nitrite as N	ppm	0.077	<	<	<	<	<	<	<	<	<
Secchi	m										

Secchi was not taken, tailrace only 3 ft deep

**Bcc: Dave Michaud w/encl.
John Hrobar w/encl.
Russ Rick
Tom Plante
Joni Reed**