



we energies

231 W. Michigan Street
Milwaukee, WI 53203
www.we-energies.com

April 26, 2004

Mr. William Dam
Environmental Project Manager
U.S. Nuclear Regulatory Commission
Office of Nuclear Reactor Regulation
Mail Stop O11F1
Washington, D.C. 20555

Dear Mr. Dam:

The attachments to this letter provide the additional information referenced in the e-mail regarding Point Beach License Renewal that I sent you on April 23, 2004. That e-mail identified the information that would be provided via the U.S. mail. The list below describes the information included as an attachment to this letter.

Intake Structure Tolling Agreement Annual Reports

1. Copy of annual reports submitted to the U.S. Fish & Wildlife Service for 2001 (partial year), 2002, and 2003;

Wastewater Retention Pond Closure Documentation

2. Letter to Wisconsin Department of Natural Resources (WDNR) dated June 3, 2003, documenting completion of retention pond closure activities;
3. Letter from WDNR dated April 30, 2002, granting approval of the abandonment plan for the retention pond;
4. Retention pond abandonment plan that was submitted to WDNR with cover letter dated March 8, 2002;
5. Letter from WDNR dated May 13, 2002, granting approval for soil removal and regrading in the wetland area near the retention pond as part of pond closure;
6. Chapter 30 permit application materials and cover letter dated March 20, 2002, that were submitted to WDNR for soil removal and regrading in the wetland area near the retention pond;

Wastewater Mercury Monitoring Regulation

7. Copy of NR 106.145, Wisconsin Administrative Code, regarding wastewater mercury regulation; and

Polychlorinated Biphenyl (PCB) Transformer Registration

8. Copy of the PCB transformer registration dated November 13, 1998, that was submitted to the U.S. Environmental Protection Agency.

Please let me know if you have any questions about this submittal.

Sincerely,

Kris McKinney
Environmental Lead
Point Beach License Renewal

Attachments (8)

cc: Jim Knorr
Roger Newton (w/o attachments)

Intake Structure

Tolling Agreement

Annual Reports



Wisconsin Electric
A WISCONSIN ENERGY COMPANY

Chapter 2 WEPCO 2002

Point Beach Nuclear Plant
6610 Nuclear Rd.
Two Rivers, WI 54241
Phone 920 755-2321

PBNP-01-22

NPL 2002-0014

January 14, 2002

Edward C. Spoon
Special Agent
U.S. Fish & Wildlife Service
Green Bay Field Office

Dear Mr. Spoon:

Re: Point Beach Nuclear Plant
Fish and Bird Report for Period June 1, 2001 through December 31, 2001

Wisconsin Electric Power Company ("WEPCO") and Nuclear Management Company, LLC ("NMC") submit the enclosed report in satisfaction of the terms set forth in the letter dated June 6, 2001 from the U.S. Attorney, Eastern District of Wisconsin, U.S. Department of Justice, to Susan H. Martin, Wisconsin Electric Power Company. This report contains a record of the birds and fish removed and recovered from the fish basket associated with the traveling water screen screen-wash system of the cooling water intake at Point Beach Nuclear Plant for the period June 1, 2001 to December 31, 2001. These records were kept and are submitted consistent with the terms agreed to in the June 2001 letter.

We would note that although inspection was done for smaller fish (smaller than six inches) consistent with paragraph two of the June 2001 letter, with the exception of the previously reported intrusions of alewives on June 28, July 3, and July 7, 2001, fish smaller than six inches have not been recovered from the traveling water screen screen-wash system during this time period.

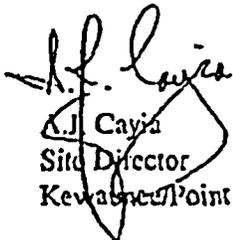
With submission of the enclosed information, WEPCO has satisfied the record keeping and reporting obligations for 2001 set forth in the June 2001 letter.

REC'D APR 16 2004

NPI-2002-0014
January 14, 2002
Page 2

If you have any further questions, please contact the undersigned.

Very truly yours,



A.J. Cayia
Site Director
Kewaunee Point Beach Nuclear

Susan H. Martin
Counsel
Wisconsin Electric Power Company

Enclosure

cc: Matthew V. Richmond, Assistant U.S. Attorney
Dave Michaud, Wisconsin Electric Power Company

Point Beach Nuclear Plant
 NPL 2002-0014
 January 14, 2002

Migratory
 Birds:

PBF-2107,
 Screen Wash
 System Fish and
 Bird Log data:
 6/1/01 through
 12/31/01

	Cormorants	Seagulls
JUNE TOTALS:	0	0
JULY TOTALS:	0	0
AUGUST TOTALS:	0	2*
SEPTEMBER TOTALS:	0	0
OCTOBER TOTALS:	0	0
NOVEMBER TOTALS:	0	0
DECEMBER TOTALS:	0	0

Fish larger than six (6) inches removed and recovered from the fish basket:

GAME & FOOD

	Bluegill (G&F)	Burbot/Lawyer	Catfish	Perch	Small Mouth Bass	White Fish	Nonspecific Game & Food	TOTAL
JUNE TOTALS:	0	2	1	0	0	0	0	3
JULY TOTALS:	0	3	0	0	1	0	0	4
AUGUST TOTALS:	0	17	0	1	0	0	0	18
SEPTEMBER TOTALS:	0	1	0	0	0	0	0	1
OCTOBER TOTALS:	1	0	0	0	0	3	13	17
NOVEMBER TOTALS:	0	2	0	0	0	2	1	5
DECEMBER TOTALS:	0	0	0	0	0	0	1	1

ROUGH

	Carp	Crappie	Sheephead	Sucker	Trash	Nonspecific Rough	TOTAL
JUNE TOTALS:	0	0	0	3	4	0	7
JULY TOTALS:	1	2	0	12	28	0	43
AUGUST TOTALS:	1	0	1	24	0	0	26
SEPTEMBER TOTALS:	0	0	0	3	0	0	3
OCTOBER TOTALS:	1	0	0	26	0	0	27
NOVEMBER TOTALS:	0	1	0	9	0	0	10
DECEMBER TOTALS:	0	0	0	0	0	9	9

SALMON

	Chinook Salmon	Coho Salmon	King Salmon	Nonspecific Salmon	TOTAL
JUNE TOTALS:	0	0	0	0	0
JULY TOTALS:	1	0	1	0	2
AUGUST TOTALS:	0	0	0	0	0
SEPTEMBER TOTALS:	0	0	0	1	1
OCTOBER TOTALS:	2	0	0	2	4
NOVEMBER TOTALS:	0	1	0	5	6
DECEMBER TOTALS:	0	0	0	2	2

TROUT

	Brown Trout	Lake Trout	Rainbow Trout	TOTAL
JUNE TOTALS:	0	1	0	1
JULY TOTALS:	0	0	0	0
AUGUST TOTALS:	0	2	0	2
SEPTEMBER TOTALS:	0	2	0	2
OCTOBER TOTALS:	0	9	1	10
NOVEMBER TOTALS:	1	0	1	2
DECEMBER TOTALS:	0	0	0	0

Unidentified Fish
0
1
0
2
10
5
3

* Seagulls were removed and recovered on August 2, 2001 and August 16, 2001.



Nuclear Management Company, LLC
Point Beach Nuclear Plant
6610 Nuclear Road
Two Rivers, WI 54241

NPL 2003-0014

January 14, 2003

Edward C. Spoon
Special Agent
U. S. Fish & Wildlife Service
Green Bay Field Office
1015 Challenger Ct.
Green Bay, WI 54311-8331

Re: Point Beach Nuclear Plant
Fish and Bird Report for Period January 1, 2002 through December 31, 2002

Dear Mr. Spoon:

Wisconsin Electric Power Co., d/b/a We Energies (We Energies) and Nuclear Management Company, LLC (NMC) hereby submit the enclosed report in satisfaction of the terms set forth in the letter dated June 6, 2001 from the U.S. Attorney, Eastern District of Wisconsin, U.S. Department of Justice to Susan H. Martin, Wisconsin Electric Power Company. This report contains a record of the birds and fish removed and recovered from the fish basket associated with the traveling water screen screen-wash system of the cooling water intake at Point Beach Nuclear Plant (PBNP) for the period January 1, 2002 to December 31, 2002. These records were kept and are submitted consistent with the terms agreed to in the June 2001 letter.

Similar to the 2001 Fish and Bird Report submitted January 14, 2002, we would again note that although inspection was done for smaller fish (smaller than six inches) consistent with paragraph two of the June 2001 letter, fish smaller than six inches cannot typically be recovered from the traveling water screen screen-wash system because they pass through the screen. Fish smaller than six inches were recorded and are being reported by number rather than by aggregate weight due to the minimal number of fish recorded.

On August 27, 2002, Fred Cayia, Dave Michaud, and Susan Martin, met with the FWS and the Assistant U.S. Attorney to discuss issues related to the PBNP reporting requirements. At that meeting, we stated that We Energies and NMC would continue to perform its record keeping as performed during 2001, unless the U.S. Department of Justice of U.S. Fish & Wildlife Service provided additional information. To date, we have received no further information.

With submission of the enclosed information, We Energies continues to satisfy the record keeping and reporting obligations for 2002 as set forth in the June 2001 letter.

REC'D JAN 23 2003

2

NPL 2003-0014
January 14, 2003
Page 2

If you have any further questions, please contact the undersigned.

Very truly yours,



A.J. Cayia
Site Vice President

Enclosure

cc: Matthew V. Richmond, Assistant U.S. Attorney
Susan H. Martin, Counsel – We Energies

Point Beach Nuclear Plant
 NPL 2003-0014
 January 14, 2003

2002	MIGRATORY BIRDS		TROUT > 6"					SALMON > 6"					GAME & FOOD > 6"							ROUGH > 6"						OTHER**						
	Cormorants	Gulls	Brown Trout	Lake Trout	Rainbow Trout	Nonspecific Trout	TOTAL	Chinook Salmon	Coho Salmon	King Salmon	Nonspecific Salmon	TOTAL	Bluegill	Burbot/Lawyer	Catfish	Perch	Small Mouth Bass	White Fish	Nonspecific G & F	TOTAL	Carp	Crappie	Sheephead	Sucker	Trash	Nonspecific Rough	TOTAL	Unknown Fish > 6"	Forage > 6"	Alewife < 6"	Nonspecific Fish < 6"	TOTAL
JAN	0	0	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0	0	2	2	0	0	0	1	0	5	6	16	0	0	0	0
FEB	0	1*	0	0	0	1	1	0	0	0	1	1	0	0	1	0	0	0	9	10	0	0	0	3	0	6	9	2	0	0	0	0
MAR	0	0	0	0	0	0	0	0	0	0	13	13	0	1	0	0	0	0	5	6	2	0	0	0	0	3	5	1	0	0	1	1
APR	0	1*	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0	2	2	4	0	0	0	0	0	6	6	0	0	0	1	1
MAY	0	2*	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	2	2	1	0	0	0	0
JUN	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1	2	3	0	0	0	1	0	3	4	0	0	0	0	0
JUL	0	10*	0	0	0	1	1	0	0	0	0	0	0	4	0	0	0	0	0	4	0	0	0	16	0	4	20	1	3	3	4	10
AUG	0	0	0	0	0	0	0	0	0	0	1	1	0	9	3	0	0	0	1	13	1	0	0	11	0	1	13	0	0	0	0	0
SEP	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	1	0	11	12	0	0	0	0	0
OCT	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	7	0	4	11	1	0	0	0	0
NOV	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	3	3	0	0	0	0	0	1	1	0	0	0	4	4
DEC	0	0	0	0	0	14	14	0	0	0	5	5	0	0	0	0	0	0	25	25	0	0	0	0	0	3	3	0	0	2	2	0
TOTAL	0	14	0	1	3	18	22	0	0	0	25	25	0	15	4	0	0	3	53	75	3	0	0	40	0	49	92	22	3	3	12	18

*The gulls were recovered on 2/24/02, 4/20/02, 5/10/02 (2), 7/11/02, 7/12/02 (2), 7/13/02, 7/18/02, 7/19/02 (4), and 7/22/02.

**Fish smaller than six inches cannot typically be recovered from the traveling water screen screen-wash system because they pass through the screen.



NPL 2004-0010

January 15, 2004

Edward C. Spoon
Special Agent
U. S. Fish & Wildlife Service
Green Bay Field Office
1015 Challenger Ct.
Green Bay, WI 54311-8331

Point Beach Nuclear Plant
Fish and Bird Report for Period January 1, 2003 through December 31, 2003

Dear Mr. Spoon:

Wisconsin Electric Power Company, doing business as We Energies (We Energies) and Nuclear Management Company, LLC (NMC), hereby submit the enclosed report in satisfaction of the terms set forth in the letter dated June 6, 2001 from the U.S. Attorney, Eastern District of Wisconsin, U.S. Department of Justice to Susan H. Martin, Wisconsin Electric Power Company. This report contains a record of the birds and fish removed and recovered from the fish basket associated with the traveling water screen screen-wash system of the cooling water intake at Point Beach Nuclear Plant (PBNP) for the period of January 1, 2003 to December 31, 2003.

We wish to note that in 2003, the electronic data logs used to record information on birds recovered in the traveling water screen screen-wash system did not include identification of the individual bird species. The NMC staff is revising the data logs for 2004 to record that information.

In addition, as in the 2002 Fish and Bird Report submitted January 14, 2003, we would again note that although inspection for smaller fish (smaller than six inches) was completed consistent with paragraph two of the June 2001 letter, fish smaller than six inches cannot typically be recovered from the traveling water screen screen-wash system because they pass through the screen. When recovered in larger numbers, as was the case in June and July of 2003, the number of alewife was counted without the aggregate weight determined.

REC'D FEB 09 2004

NPL 2004-0010

Page 2

With submission of the enclosed information, We Energies has completed the third year of the five-year record keeping and reporting obligations as set forth in the June 2001 letter.

If you have any further questions, please contact the undersigned.



A.J. Cayia
Site Vice President

Enclosure

cc: Matthew V. Richmond, Assistant U.S. Attorney
Susan H. Martin, Counsel – We Energies

POINT BEACH NUCLEAR PLANT 2003 FISH AND BIRD REPORT

MIGRATORY BIRDS AND FISH > 6"

2 0 0 3	MIGRATORY BIRDS		TROUT > 6"					SALMON > 6"					GAME & FOOD > 6"							ROUGH > 6"					Unknown Fish > 6"	
	Identifiable Birds*	Unidentifiable Birds*	Brown Trout	Lake Trout	Rainbow Trout	Nonspecific Trout	TOTAL	Chinook Salmon	Coho Salmon	King Salmon	Nonspecific Salmon	TOTAL	Bluegill	Burbot/Lawyer	Catfish	Perch	Small Mouth Bass	White Fish	Nonspecific G & F	TOTAL	Carp	Freshwater Drum/Sheepshead	Sucker	Nonspecific Rough		TOTAL
JAN	3	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	0	10	10	0	0	0	2	2	1
FEB	3	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0
MAR	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	4	4	0	0	0	1	1	1
APR	3	1	0	0	0	1	1	0	0	0	2	2	0	0	4	0	0	84	7	95	0	614	0	4	618	8
MAY	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	1	1	14	16	4
JUN	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	6	8	0	0	1	1	2	1
JUL	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	0	0	0	1	2	0	0	4	1	5	0
AUG	1	0	0	0	1	0	1	1	0	0	0	1	0	8	0	1	0	0	0	9	0	0	40	0	40	0
SEP	0	0	1	4	0	0	5	0	2	0	1	3	0	6	0	0	0	0	0	6	0	0	7	0	7	0
OCT	0	0	0	2	0	1	3	0	0	0	0	0	0	2	0	0	0	0	0	2	1	0	1	0	2	0
NOV	0	0	0	0	0	1	1	1	0	0	0	1	0	0	0	0	0	1	0	1	0	0	9	0	9	3
DEC	3	0	1	0	4	0	5	0	1	0	0	1	0	5	1	0	0	13	2	21	1	1	10	1	13	1
TOTAL:	16	1	2	6	5	6	19	2	3	0	7	12	0	23	5	2	0	98	33	161	2	616	73	27	718	19

*Identifiable birds recovered on 1/20/03 (3), 2/22/03 (3), 4/29/2003 (3), 5/9/2003 (1), 5/12/2002 (2), 8/26/03 (1), and 12/22/2003 (3). Unidentifiable bird recovered on 4/5/03.

POINT BEACH NUCLEAR PLANT 2003 FISH AND BIRD REPORT

FORAGE AND SMALLER FISH

START DATE	END DATE	Forage > 6"	Alewife < 6"	Nonspecific Fish < 6"
JUN 1	JUN 7	0	0	1
JUN 8	JUN 14	0	0	14
JUN 15	JUN 21	0	111	0
JUN 22	JUN 28	0	0	0
JUN 29	JUL 5	0	0	0
JUL 6	JUL 12	0	8	0
JUL 13	JUL 19	0	44	0
JUL 20	JUL 26	0	0	0
JUL 27	AUG 2	0	29	0
SEP 29	OCT 4	0	0	0
OCT 5	OCT 11	0	0	0
OCT 12	OCT 18	0	0	0
OCT 19	OCT 25	0	0	0
OCT 26	NOV 1	0	0	0
NOV 2	NOV 8	0	0	0
NOV 9	NOV 15	1	0	0
NOV 16	NOV 22	0	0	0
NOV 23	NOV 30	0	0	0
TOTAL:		1	192	15

**Wastewater
Retention Pond
Closure
Documents**



we energies

231 W. Michigan Street
Milwaukee, WI 53203
www.we-energies.com

June 3, 2003

Mr. Paul Luebke
Wisconsin Department of Natural Resources
P.O. Box 7921
Madison, WI 53707-7921

**SUBJECT: ABANDONMENT of WASTEWATER RETENTION POND
at POINT BEACH NUCLEAR PLANT**

Dear Mr. Luebke:

Wisconsin Electric Power Company (d/b/a We Energies) submitted an abandonment plan for the Point Beach Nuclear Plant (PBNP) wastewater retention pond in March, 2002 and received approval of the plan from the Department of Natural Resources in a letter dated April 30, 2002. The plan had been completed in accordance with Chapter NR 213.07 of the Wisconsin Administrative Code. The wastewater retention pond was taken out of service on October 1, 2002. The abandonment of the pond and the associated removal of impacted soils in the vicinity of the pond were carried out in accordance with the plan and were completed on November 1, 2002. Therefore, the wastewater retention pond has been properly abandoned within two years of the date on which the pond was last used to treat wastewater, as required by NR 213.07.

Please feel free to contact me at (414) 221-3235 with any questions you may have.

Sincerely,

A handwritten signature in cursive script that reads "Elizabeth Hellman".

Elizabeth Hellman, P.E.
Principal Environmental Strategist

cc: Mr. David Gerdman, DNR-Mishicot Office

bcc: Gary Corell/Kjell Johansen – PBNP
Nate Leech – PBNP
ED File 1.8.2.2 / Corp. File 19.24.02
NP-File



State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Scott McCallum, Governor
Darrell Bazzell, Secretary

101 S. Webster St.
Box 7921
Madison, Wisconsin 53707-7921
Telephone 608-266-2621
FAX 608-267-3579
TTY 608-267-6897

April 30, 2002

Elizabeth Hellman, P.E.
Wisconsin Energy Corporation
231 West Michigan
Milwaukee, WI 53290-0001

Subject: Point Beach Power Plant WPDES Permit WI-0000957-6
Abandonment Plan for Wastewater Retention Pond

Dear Ms. Hellman:

We are approving the abandonment plan for the wastewater retention pond located at the Point Beach Nuclear Power Plant. The plan was reviewed for compliance with the abandonment requirements contained in s. NR 213.07, Wis. Adm. Code. The plan was prepared by GeoSyntec Consultants and Elizabeth Hellman, and was received for approval on March 13, 2002. The information provided was thorough and provided all the necessary documentation. The following is our understanding of the abandonment plan.

Design Information

Retention Pond

The pond, with dimensions of 140 feet by 95 feet, was constructed in 1968. It received wastewater from a variety of sources including the sanitary treatment plant, turbine hall sumps, facade sumps, and discharges from the potable water treatment system. The pond provided suspended solids removal by gravity sedimentation. Abandonment of the wastewater retention pond is necessary because its storage capacity has been reduced by the accumulation of 5 feet of sediment. It has been replaced by a new filtration system that was approved January 31, 2000, which will now provide suspended solids removal.

NR 213 Evaluation

The retention pond was reviewed for compliance with the design requirements for industrial wastewater lagoons and groundwater quality standards. The report concluded the waters of the state were not adversely impacted by the retention pond. The retention pond was granted an exemption from the minimum separation from groundwater and was approved for continued use April 10, 1996.

Retention Pond Sediment

Because the sediment has not adversely impacted groundwater quality, and testing confirmed it does not contain concentrations of contaminants at levels of concern, the sediment in the retention pond may be disposed of in place. Approximately 2000 cubic yards of

sediment will be stabilized with a cement mix and covered with 2 foot of soil and 0.5 feet of topsoil. Any residual contamination levels of radionuclides will be less than the NRC decommissioning guideline. The retention pond had previously been dredged and controls were implemented at the power plant after 1975 that reduced the presence of radionuclides in the sediment.

Wetland Soil Removal

Prior to 1975, before the effluent was discharged with the cooling water to Lake Michigan, effluent from the retention pond was allowed to run overland and absorb into the soil in a wetland area. Analysis of the soil outside of the retention pond indicates there is some contamination with radionuclides exceeding NRC standards. An estimated 230 cubic yards of soil is impacted. Soil with concentrations of radionuclides greater than 10 pCi/g will be removed in containers and taken to a licensed facility.

Site Grading

The retention pond site will be graded to prevent the accumulation of any water. The area will be re-vegetated with native grasses.

Erosion control

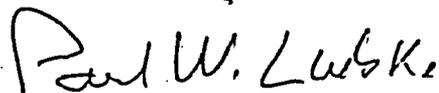
The retention pond abandonment and wetland soil removal work involves an area about one acre in size. A storm water construction permit is not required if less than 5 acres of ground surface is disturbed. The plan includes runoff controls such as slit fences around the work areas. Questions on storm water permitting may be referred to Cheryl Bougie in the Northeast Region (920-448-5141).

Chapter 30 Permit

An application was made for a chapter 30 permit March 20, 2002, for work in and around the wetland area. Mike Hanaway in the Mishicot Service Center will be handling that permitting if needed (920-755-4942).

If you have any questions, please call me at 608-266-0234.

Sincerely,



Paul W. Luebke, P.H.
Wastewater Permits and Pretreatment Section
Bureau of Watershed Management

copy: Duane Schuettpelz - WT/2
David Gerdman - Northeast Region
Mike Hanaway - Mishicot Service Center
Cheryl Bougie - Northeast Region



Wisconsin Electric-Wisconsin Gas
231 W. Michigan St.
Milwaukee, WI 53290-0001
Phone 414 221-2345

March 20, 2002

Mike Hanoway
Wisconsin Department of Natural Resources
2220 E. CTH V
Mishicot, WI 54228

VIA CERTIFIED MAIL

Dear Mr. Hanoway:

**SUBJECT: WETLAND SOIL REMOVAL ASSOCIATED WITH POND ABANDONMENT AT
POINT BEACH NUCLEAR POWER PLANT – TWO RIVERS (MANITOWOC
COUNTY)**

As part of our retention pond abandonment, Wisconsin Electric-Wisconsin Gas Company (WE/WG) requests chapter 30 permit approval to remove soil from wetland areas on our Point Beach Nuclear Plant property. We propose to remove up to one foot of soil from less than one-quarter acre (approximately 230 cubic yards) of wetland adjacent to the retention pond. Tree removal and grubbing will also be required. The attached site drawing shows four soil remediation areas near the retention pond and the approximate T3K wetland boundary indicated on the Wisconsin Wetland Inventory. Further details on the project are included in our retention pond abandonment plan filed in early March, 2002 with Mr. Paul Luebke, DNR Wastewater Permits and Pretreatment Section, Bureau of Wastewater Management in Madison.

We anticipate performing this work during dry conditions sometime between mid June and October, 2002 and expect it will take approximately two weeks to complete the site clearing and soil removal. Erosion controls including staked in straw bales, silt fence, and mulch will be installed and maintained as necessary to stabilize the area until successfully revegetated.

The following materials are attached:

1. Joint State/Federal Application Form 3500-053
2. Check for \$300.00 Application Fee
3. USGS/WWI Map
4. Site Drawing

The retention pond is an earthen settling basin that has been in service for over 30 years. It is being replaced by a new wastewater treatment system that is undergoing final testing. Once the new system is operational, the pond will be removed from service and our abandonment plans will be implemented. NR 213.07 requires that this pond be properly abandoned within 2 years after it is removed from service. Therefore, because this work is part of a retention pond abandonment plan and is subject to the two year time limitation, we would appreciate your review of this application at your nearest opportunity. Please call me at (414) 221-4434 if you have any questions or need any further information.

Sincerely,

Richard Sternkopf
Water Quality Specialist

attachments

cc: Dale Gross, USACoE
Paul Luebke, DNR-Madison
David Lee/Beth Hellman, WE/WG

bcc: Gary Corell
Kjell Johansen
NP – File
Terry Slack

ED File: 1.11.2 (19.15.03.002)

PAYEE NAME
DNR NORTHEAST REGION HDQRS

PAYEE CODE
1028082

CHECK DATE
03/12/2002

CHECK NUMBER
1487108

INV. DATE	YOUR INVOICE REF #	OUR REFERENCE #	GROSS	DISCOUNT	NET AMOUNT
03/07/2002	RC 021812 021812	1800023016	300.00	0.00	300.00
Refer Check To: RICHARD A STERNKOPF, A146 PBNP CH: 30 WETLAND PERMIT					

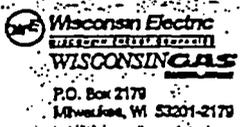
Wisconsin Electric Power Company
Wisconsin Gas Company
PO Box 2179, Milwaukee, WI 53201-2179

CHECK AMOUNT
\$ 300.00

DNR NORTHEAST REGION HDQRS
FISHERIES MGMT AND HABITAT PROTECT
PO BOX 10448
GREEN BAY WI 54307-0448

Effective January 1, 1996, Wisconsin Electric Power Company will submit the appropriate use tax for this purchase directly to the Wisconsin Department of Revenue under direct pay permit number WDP 96-01-01022. The use of this direct pay permit is for this purchase only.

IS MULTI-TONE AREA OF THE DOCUMENT CHANGES COLOR GRADUALLY AND EVENLY FROM DARK TO LIGHT WITH DARKER AREAS BOTH TOP AND BOTTOM



79-1160
759

Check Date
03/12/2002

Check Number
1487108

PAY : Three Hundred Dollars And No Cents

VOID After 6 Months

Check Amount
\$ 300.00

To The Order Of
DNR NORTHEAST REGION HDQRS
FISHERIES MGMT AND HABITAT PROTECT
PO BOX 10448
GREEN BAY WI 54307-0448

Jeffrey West
Authorized Signature
Firstar Bank Wausau
Wausau, Wisconsin

1487108 021812021 120379

PLEASE COMPLETE BOTH PAGES 1 & 2 OF THIS APPLICATION. PRINT OR TYPE. The Department requires use of this form for any application filed pursuant to Chapter 30, Wis. Stats. The Department will not consider your application unless you complete and submit this application form. Personally identifiable information on this form will be used for any other purpose, but it must be made available to requesters under Wisconsin's open records law [s. 19.31-19.39, Wis. Stats.]. (See attached Project Drawings lieu of page 2)

1. Applicant (Individual or corporate name) Wisconsin Energy Corporation		2. Agent/Contractor (firm name)	
Address 231 W. Michigan Street		Address	
City, State, Zip Milwaukee, WI 53290-0001	Fire Number	City, State, Zip Code	
Telephone	Tax Parcel Number	Telephone No. (Include Area code)	
3. If applicant is not owner of the property where the proposed activity will be conducted, provide name and address of owner and include letter of authorization from owner. Owner must be the applicant or co-applicant for structure, diversion and stream realignment activities.			
Owner's Name		Address	
		City, State, Zip Code	
4. Is the applicant a business? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, is the permit or approval you are applying for necessary for you to conduct this business in the State of Wisconsin <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If YES, please explain why (attach additional sheets if necessary) Site remediation according to retention pond abandonment plan filed with Mr. Paul Luebke DNR Wastewater Permits Section		5. Project Location Address 6610 Nuclear Road Village/City/Town Two Rivers, WI 54241 Fire Number _____ Tax Parcel Number _____ Waterway unnamed T3K wetland County Manitowoc Govt Lot _____ OR _____ SW 1/4, NW 1/4, of section 24 Township 21 North, Range 24 (East) (West)	
6. Adjoining Riparian (Neighboring Waterfront Property Owner) Information			
Name of Riparian #1 N/A		Street or Route City, State, Zip Code	
Name of Riparian #2		street or Route City, State, Zip Code	
7. Project Information (Attach additional sheets if necessary)			
(a) Describe proposed activity (include how this project will be constructed) Soil excavation and removal to approx. 1ft. depth			
(b) Purpose, need and intended use of project: Site remediation according to retention pond remediation plan			
(c) I have applied for or received permits from the following agencies: (Check) <input type="checkbox"/> Municipal <input type="checkbox"/> County <input type="checkbox"/> Wis DNR <input type="checkbox"/> Corp. of Engineers			
(d) Date activity will commence if permit is issued _____ be completed _____			
(e) Is any portion of the project now complete? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, identify the completed portion on the enclosed drawings and indicate here the date activity was completed			
I hereby certify that the information contained herein is true and accurate. I also certify that I am entitled to apply for a permit, or that I am the duly authorized representative or agent of an applicant who is entitled to apply for a permit. Any inaccurate information submitted may result in permit revocation, the imposition of a forfeiture(s) and requirement of restoration.			
<input type="checkbox"/> Withhold personal identifiers collected on this form from disclosure on any list of 10 or more individuals that the DNR is requested to provide to another person [s. 23.45, Wis. Stats.].			
Signature of Applicant(s) or Duly Authorized Agent <i>Richard J. Stemborg</i>		Date Signed 3-20-02	
LEAVE BLANK - FOR RECEIVING AGENCY USE ONLY			
Corporation/Process No.		Wisconsin DNR File No.	
Received by		Date Received	Date Application Was Completed

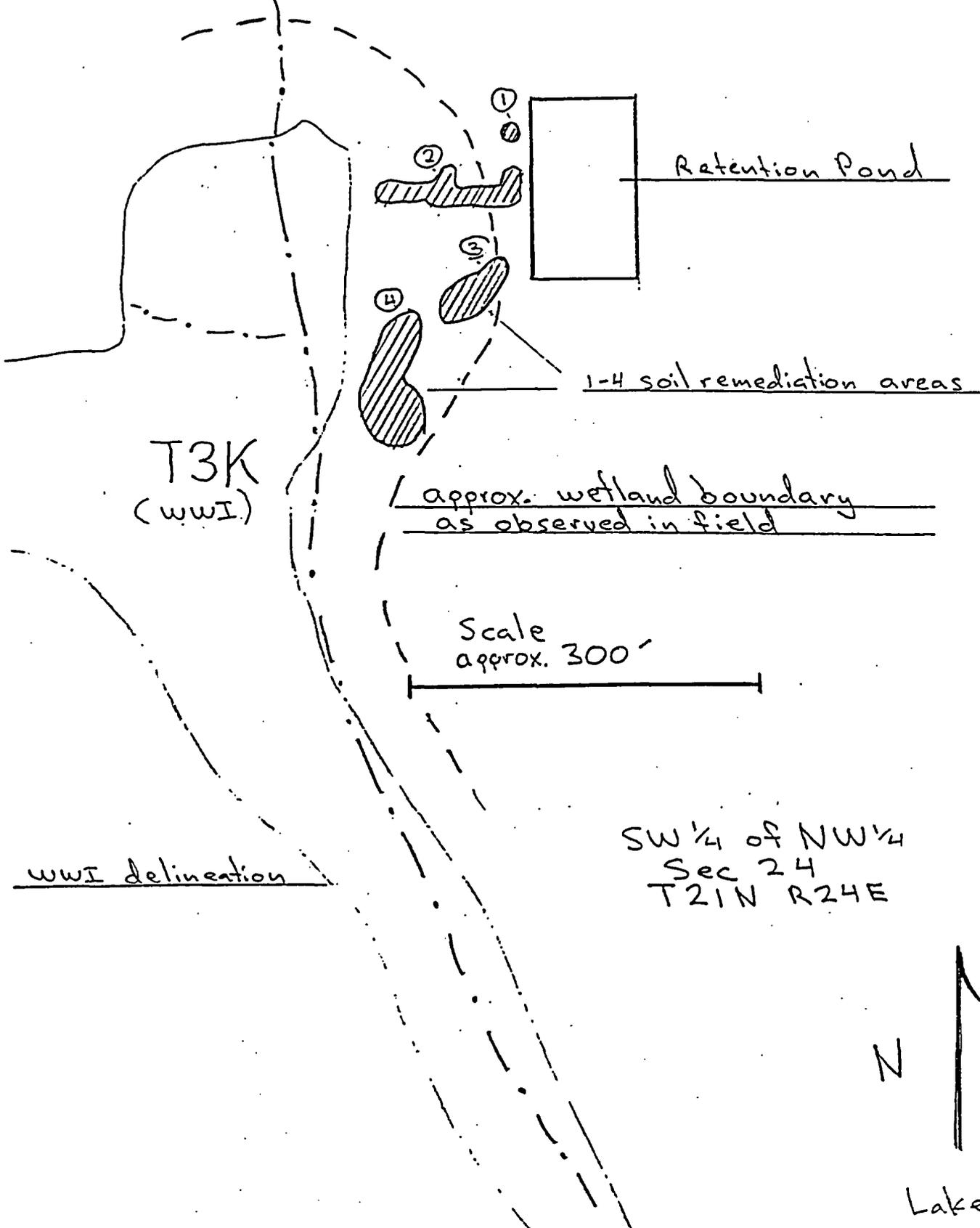
Point Beach Nuclear Plant

Retention Pond Closure

Adjacent Soil Remediation in Wetland

intermittent stream

PDN
Substation



Retention Pond

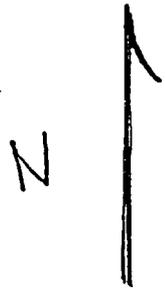
1-4 soil remediation areas

T3K
(wwI)

approx. wetland boundary
as observed in field

Scale
approx. 300'

SW 1/4 of NW 1/4
Sec 24
T21N R24E

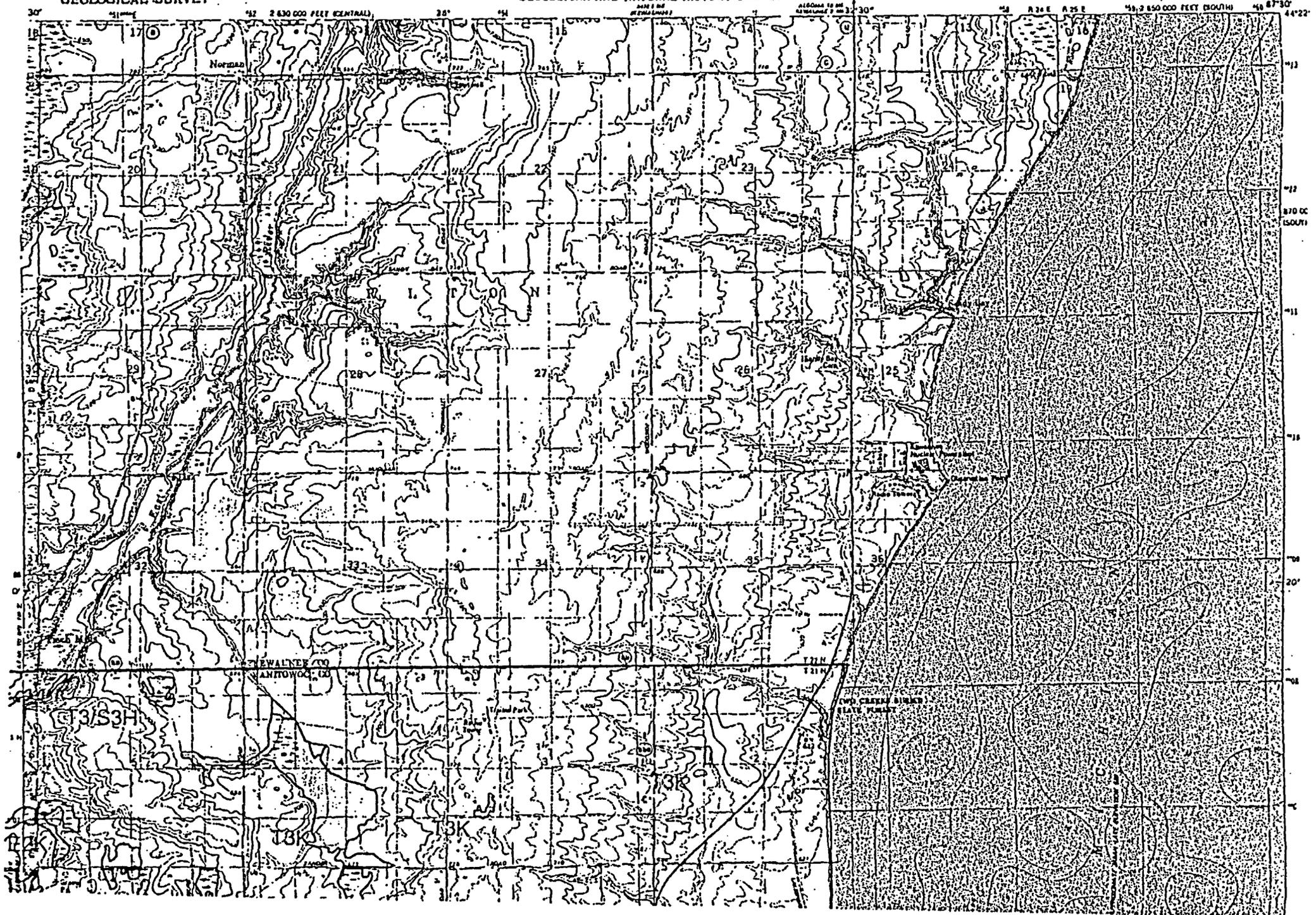


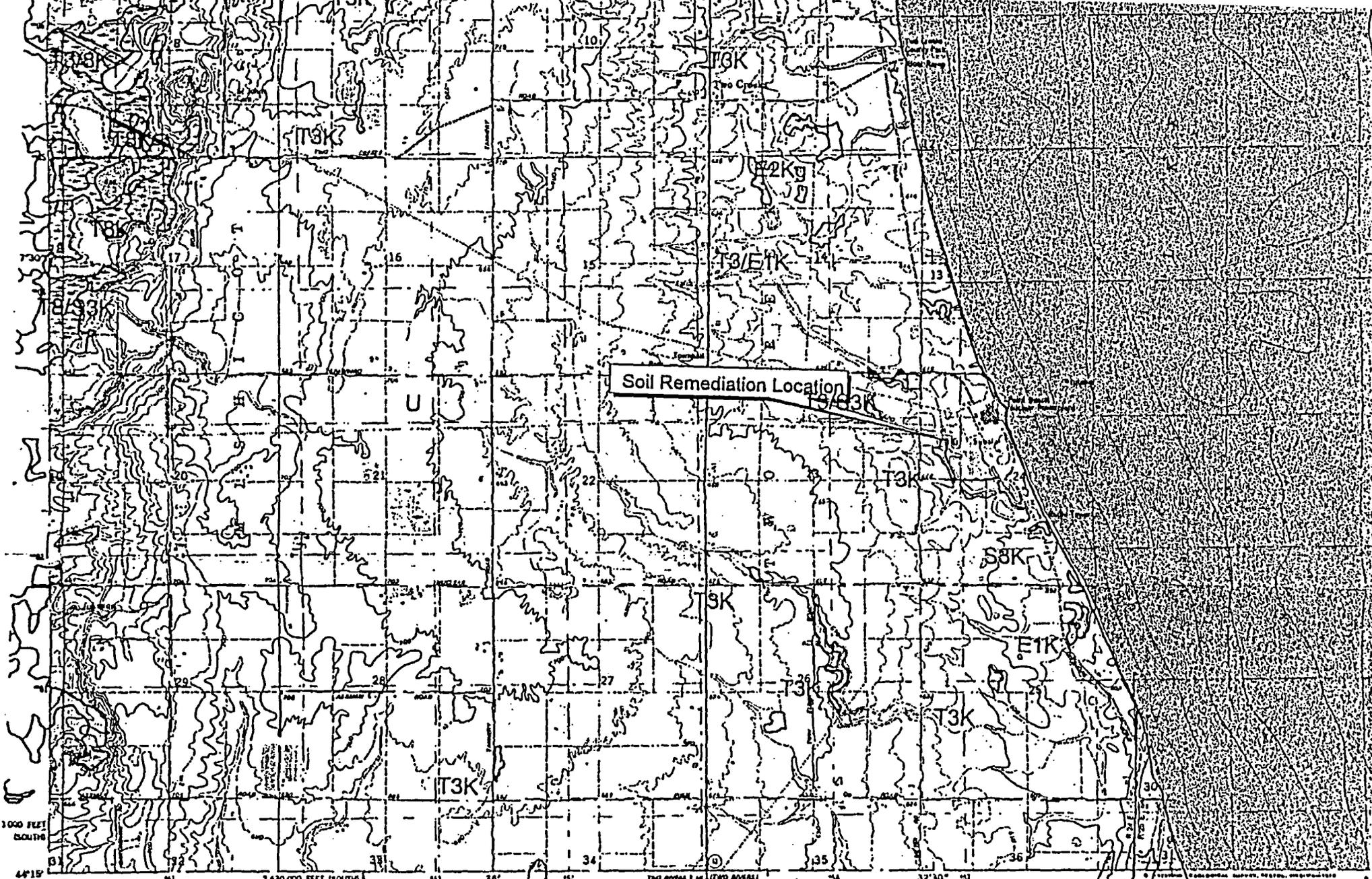
Lake Michigan

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

STATE OF WISCONSIN
DIVISION OF HIGHWAYS
GEOLOGICAL AND NATURAL HISTORY SURVEY

TWO CREEKS QUADRANGLE
WISCONSIN
7.5 MINUTE SERIES (TOPOGRAPHIC)
DATE APPROXIMATE 19' QUADRANGLE

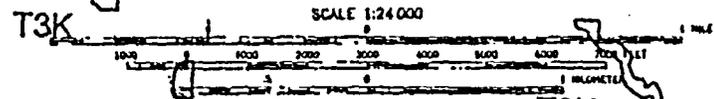




Soil Remediation Location

1000 FEET
EQUIVAL

Mapped, edited, and published by the Geological Survey
in cooperation with the Wisconsin Division of Highways
and Wisconsin Geological and Natural History Survey
Control by USGS and NOS/NOAA
Selected hydrographic data compiled from NOS/NOAA
Chart 14903 (1975). This information is not intended
for navigational purposes
Topography by photogrammetric methods from aerial photographs
taken 1976. Field checked 1976. Map edited 1978
Projection: Wisconsin coordinate system, south zone
(Lambert conformal conic)
1/4 inch = 1000 feet based on Wisconsin coordinate



CONTOUR INTERVAL 10 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1979
DEPTH CURVES AND SOUNDINGS IN FEET DATUM IS LOW WATER 876.8 FEET

ROAD CLASSIFICATION
 Primary highway, hard surface ——— Light duty road, hard or improved surface
 Secondary highway, hard surface ——— Unimproved road
 State Route ——— U. S. Route
 State Route —○— State Route

THIS MAP COMPLES WITH NATIONAL MAP ACCURACY STANDARDS
 FOR SALE BY U.S. GEOLOGICAL SURVEY, DENVER, COLORADO 80276, OR RESTON, VIRGINIA 22092
 AND WISCONSIN GEOLOGICAL AND NATURAL HISTORY SURVEY, MADISON, WISCONSIN 53706
 THE INFORMATION ON THIS MAP AND ANY CHANGE IS AVAILABLE ON REQUEST

TWO CREEKS, WI
 DATA REQUIREMENT FOR QUADRANGLE
 N4415-W8730-7.5

1978

U.S. GEOLOGICAL SURVEY



Wisconsin Electric

WISCONSIN ENERGY COMPANIES

WISCONSIN GAS

Wisconsin Electric-Wisconsin Gas

231 W. Michigan St.

Milwaukee, WI 53290-0001

Phone 414 221-2345

March 8, 2002

Mr. Paul Luebke
Wisconsin Department of Natural Resources
P.O. Box 7921
Madison, WI 53707-7921

**SUBJECT: ABANDONMENT PLAN for POINT BEACH NUCLEAR PLANT
WASTEWATER RETENTION POND**

Dear Mr. Luebke:

Wisconsin Electric is requesting approval of the attached abandonment plan for the Point Beach Nuclear Plant (PBNP) wastewater retention pond. The plan has been completed in accordance with Chapter NR 213.07 of the Wisconsin Administrative Code. We are also submitting an application for a Chapter 30 permit to Mr. Mike Hanoway, since we will need to remove some soil from a wetland area as part of the retention pond abandonment. Because we would like to schedule the abandonment work to begin this summer, we will need your approval of the abandonment plan by the end of May in order to allow time to incorporate any changes that may need to be made as a result of your review.

Please feel free to contact me at (414) 221-3235 with any questions you may have.

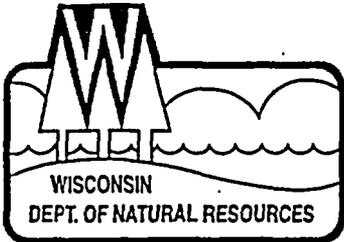
Sincerely,

Elizabeth Hellman, P.E.
Principal Environmental Strategist

cc: Mr. Mike Hanoway, DNR-Mishicot Office

bcc: Gary Corell/Kjell Johansen – PBNP
Nate Leech – PBNP
Dave Lee – A231 (w/o attachments to plan)
Tim Muehlfeld – A231 (w/o attachments to plan)
Kris Krause – P454 (cover letter only)
ED File 1.8.2.2 / Corp. File 19.24.02
NP-File

ENV 14.15.03.002
gd (1.11.2)



State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Scott McCallum, Governor
Darrell Bazzell, Secretary
Ronald W. Kazmierczak, Regional Director

Mishicot Field Office
2220 E. CHY V
Mishicot, Wisconsin 54228
Telephone 920-755-4942
FAX 920-755-4981

May 13, 2002

3-NE-2002-36-0349LB

Wisconsin Energy Corporation
Attn: Richard Sternkopf
231 W. Michigan Street
Milwaukee, WI 53290-0001

Dear Sir:

The Department of Natural Resources has received and evaluated your application for a U.S. Army Corps of Engineers GENERAL Permit (GP/LOP-WI) to remove 230 cubic yards of materials from a wetland and regrade the area. This project affects .07 acres of wetlands.

Our records indicate your project is located in the SW¼, NW¼, S24, T21N, R24E, Town of Two Creeks, Manitowoc County.

Your application is complete, and the Department has determined that this activity complies with the conditions of the Corps general permit and state water quality certification. One of the conditions of this permit is that you shall allow Department personnel reasonable entry and access to the site to inspect the work for compliance with certification and applicable laws. You shall also protect the adjacent stream from erosion during and after construction with the use of erosion fabric, straw bale barriers, and/or placement of sandbags along the stream bank.

No further information is required of you before you begin your project. Please keep this letter as a confirmation of your contact with us.

Sincerely,

Michael Hanaway
Michael Hanaway
Water Management Specialist

cc: Dick Koch – NER
Warden - Mishicot
U.S. Army Corps of Engineers
Manitowoc County Zoning Administrator



ABANDONMENT PLAN

**POINT BEACH NUCLEAR PLANT
WASTEWATER RETENTION POND**

Prepared for
Wisconsin Department of Natural Resources

Prepared by
Elizabeth Hellman
Wisconsin Electric – Wisconsin Gas

March 8, 2002

TABLE OF CONTENTS

EXECUTIVE SUMMARY.....	1
PROJECT BACKGROUND/HISTORY OF POND.....	1
RETENTION POND CLOSURE.....	2
Identity and Characterization of Pond Sediments.....	2
Plans for Pond Sediments.....	2
Closure Plan for Pond.....	3
SOILS ASSOCIATED WITH RETENTION POND.....	3
Impact to Soils and Groundwater.....	3
NR 720 Applicability.....	4
Plans for Soil Remediation.....	4
FINAL SITE DISPOSITION (SITE RESTORATION).....	5
CONCLUSION.....	5
ATTACHMENTS	

EXECUTIVE SUMMARY

Point Beach Nuclear Plant (PBNP) will soon be discontinuing the use of its retention pond for wastewater treatment. The pond is being replaced with a more modern wastewater filtration system that was approved by the Department of Natural Resources (DNR) and is in the final phase of testing. Wisconsin Administrative Code Chapter NR 213.07 requires that the pond be properly abandoned within two years of the date on which the pond was last used to treat wastewater. NR 213 also requires compliance with NR 720 for any soils contaminated by the contents of the pond. This document describes our plan for abandonment of the pond and cleanup of the surrounding soils.

PROJECT BACKGROUND/HISTORY OF POND

The retention pond is an earthen lagoon designed for settling total suspended solids from various plant discharges. After receiving state approval (DNR approval no. 68-478), the pond was constructed in 1968. In 1973, state approval (DNR approval no. 73-921) was received to dredge and deepen the pond and to redirect the discharge into the plant so that it could be routed to the condenser cooling water outfalls (001 or 002). That work was completed by the end of 1975. The dredging project increased the basin depth to 7 feet and expanded the pond volume to about 520,000 gallons. On-site disposal of the dredged solids in an area north of the pond was approved by the Atomic Energy Commission (AEC - the predecessor to the Nuclear Regulatory Commission, NRC).

Since 1975, considerable solids accumulation has occurred. Sediments are near the top of the pond in the northeast corner where the inlet pipe is located, and the average depth of the pond is now in the range of two to three feet. The available volume is less than half of the design level, and over the next several years there is a risk that adequate solids settling will not be achieved. If the situation is left unchecked, solids levels in the pond may reach a point that will hinder our ability to comply with the WPDES permit limits. Therefore, in 1998 Wisconsin Electric (WE) began to study the pond in anticipation of the regulatory requirements associated with closing it. Plant staff also modified the wastewater treatment system by installing fabric filters that are capable of performing the suspended solids removal function of the retention pond. DNR granted approval for the modification plan on January 31, 2000. The modification was implemented in stages, with the final stage completed in late 2001. Testing and minor modifications are in progress, and the system is expected to be placed in service full-time in 2002. Once the new system is placed in service full time, the retention pond can be taken out of service.

There are both non-radiological and radiological technical issues to be addressed in connection with our intentions to close the pond. The non-radiological issues were examined in a 1992 environmental study of the retention pond completed for WE by Woodward-Clyde Consultants as required by Chapter NR 213 "Lining of Industrial Lagoons and Storage Structures." The DNR determined that the pond was in compliance with NR 213 and provided an approval letter on April 10, 1996 (Attachment 1). For the radiological issues, we retained outside consultants with experience in conducting environmental radiological studies for the nuclear power industry. They aided us in characterizing the pond and the surrounding environment to determine the nature of any radioactivity in and around the pond. Their findings, which are described below,

show that there are no exceedances of any NRC radiological criteria nor any exceedances of the NR 809 drinking water criteria for the plant well that is located between the pond and the lake and drilled into the dolomite aquifer. Furthermore, we have concluded that no state or federal release reporting requirements have been triggered.

RETENTION POND CLOSURE

IDENTITY AND CHARACTERIZATION OF POND SEDIMENTS

The pond sediments consist mainly of: 1. sediments that entered the plant from Lake Michigan via service water and were removed by the makeup water treatment system, and 2. lime that was used in the makeup water treatment system to soften the water for use in the steam generators as well as elsewhere in the plant. The pond also contains solids collected by floor drains in the turbine hall and façades.

As a result of normal pond operations over the course of the years, some radionuclides have accumulated in the pond sediments. A radiological characterization study of the pond sediments was completed in mid-2001 by J. Stewart Bland Associates, Inc. Sampling for this study was conducted during the period November 15-17, 2000. A total of 93 samples were collected from the pond sediment and liner in 38 locations. The sampling pattern was based on Nuclear Regulatory Commission (NRC) guidance for conducting radiological surveys in support of license termination. All sediment and liner samples were analyzed by gamma spectrometry, and radiochemical analysis was performed on three composite samples to determine the concentrations of radionuclides not quantifiable by gamma spectrometry. Generally, only Co-60 and Cs-137 were positively identified. Am-241 was also identified in six samples but at very low concentrations.

Site-specific dose calculations were performed using RESRAD, a Department of Energy computer code developed by Argonne National Laboratory, to determine compliance with NRC residual radioactive material guidelines. The calculations assumed that the pond sediments would be dewatered, left in place, and covered with a nominal one-foot-thick topsoil cover. Based on the results, the residual contamination levels will *not* result in a dose in excess of the NRC decommissioning guideline. In fact, the resulting dose for the first year will be less than 7 percent of the NRC decommissioning guideline of 25 mrem per year. (The dose will decrease with time.) According to 10 CFR 20.1402, a site resulting in a dose of 25 mrem per year or less (in addition to natural background radiation) is considered acceptable for unrestricted use. By comparison, the area's natural background radiation dose is 300 mrem per year.

PLANS FOR POND SEDIMENTS

Our plan is to dewater the sediments, leave them in place, and cover them with about 2.5 feet of soil and vegetation. Prior to covering the sediments with soil, solidifying reagents will be added to improve their ability to support the weight of construction equipment. We believe this is an acceptable method of sediment management for the following reasons.

1. *The sediments are non-hazardous.*

The sediments are not listed and do not exhibit any of the four traditional characteristics of a hazardous waste – ignitable, corrosive, reactive, or toxic. (See Attachment 2 for Toxicity Characteristic Leaching Procedure test results for a sediment sample that was obtained by collecting four samples from different locations within the pond, combining and homogenizing the four samples, and collecting one sample of the homogenized mixture for analysis.)

2. *The operating pond complies with NR 213.*

In its April 10, 1996 letter to WE (Attachment 1), the DNR states that the retention pond is in compliance with NR 213 based on information provided that concludes that adverse impacts to waters of the state are not anticipated from operation of the pond. It follows that if the sediments are not adversely impacting waters of the state during operation, they will not do so after operation ceases.

3. *The soil cover exceeds NRC requirements.*

The thickness of the soil cover that will be placed over the sediments will be more than two times the thickness used in the RESRAD calculations described above. Therefore, leaving the sediments in place will not pose any radiological hazard.

For the above reasons, the sediments meet the criteria for disposal of sludge in place put forth in DNR's November, 1994 NR 213 lagoon abandonment guidance. Although disposal in place is fourth in the list of preferred management approaches (after landspreading, leaving in place as beneficial use, and disposal at a licensed solid waste landfill) mentioned in the guidance, it is the only approach that is feasible in this case. Because of the presence of radionuclides in the sediments, landspreading would require a special exemption from the NRC, since the rule that would have allowed it no longer exists. Since the sediments are not expected to provide a nutritional soil conditioning value to the area, we cannot pursue the beneficial use approach. Disposal of the sediments in a landfill is not a practical option because removal, dewatering, and off-site disposal of the sediments would more than double the cost of the project. Also, some of the sediments may not be eligible for disposal in a solid waste landfill because of the presence of radionuclides, which would mean a further increase in the cost of disposal. For all of the reasons explained above, leaving the sediments in place is the most prudent approach in this case.

CLOSURE PLAN FOR POND

In 2001, we retained GeoSyntec Consultants to aid us in determining an appropriate method for closing the retention pond. The closure plan for the pond is based on leaving the sediments in place, as described above. Details on the closure plan are contained in section 2.3 of the attached report by GeoSyntec Consultants (Attachment 3). The proposed schedule for the project is included as Attachment 4.

SOILS ASSOCIATED WITH RETENTION POND

IMPACT TO SOILS AND GROUNDWATER

From the time the retention pond began operation until 1975, the normal discharge path was to an intermittent creek to the west of the pond, which discharges to Lake Michigan approximately

one-half mile south of the plant. As stated previously, in 1975 the pond effluent was redirected into the plant for discharge via the condenser cooling water outfalls. The original discharge pathway has remained a permitted outfall and has occasionally been used since 1975 in preparation for pond maintenance activities. Studies conducted in 1998 indicated that, as a result of normal operation and maintenance of the pond over the years, some radioactive material accumulated in the soils to the west and southwest of the pond. Pond discharges have consistently met both WPDES permit limits and radionuclide concentration limits for releases from the plant. But because the path to the intermittent creek was via surface flow across the ground, filtration and adsorption occurred within the top soil layer along the discharge path. Underlying soils of lower permeability limited significant penetration beyond the top approximately one foot of soil.

The studies conducted in 1998 included analysis of over 100 soil samples as well as 18 standing and shallow groundwater samples. Analysis of the soil samples showed that low levels of Cs-137 and trace amounts of Co-60 and Cs-134 were present in some of the samples. Tritium was the only radionuclide identified in the groundwater samples, and it was found to be present at concentrations below the NR 809 drinking water criterion. The tritium does not pose a direct contact concern, and there is no drinking water pathway. As mentioned above, there are low levels of radionuclides in the shallow soil in the area around the retention pond, but the radiation dose levels from those radionuclides are very small. Based on the levels of radionuclides detected in the soil, calculations indicate that the average dose to an on-site worker spending 2000 hours per year in the vicinity of the pond would be approximately 3 mrem/year, which is one hundred times *less* than the area's natural background radiation dose of 300 mrem per year.

NR 720 APPLICABILITY

As mentioned previously, Wisconsin Administrative Code Chapter NR 213.07 states that abandonment plans shall comply with Chapter NR 720 for soils that have been contaminated by the contents of the lagoon, storage structure, or treatment structure for which the abandonment plan is prepared. In the case of the PBNP retention pond, the only potential contaminants of concern are the radionuclides that were included in the 1998 studies. We have no reason to believe that the soils in the vicinity of the retention pond have been contaminated by any other substances. Due to the unique nature of the PBNP case, none of the standard methods for determining soil cleanup standards that are described in NR 720 apply to the situation at PBNP. Therefore, the soil cleanup level has been determined using the NRC dose screening criterion for decommissioning, as explained in the next section.

PLANS FOR SOIL REMEDIATION

All areas with radionuclide levels greater than 10 pCi/g will be excavated and shipped off-site to a licensed facility for disposal. Areas below 10 pCi/g correspond to doses less than NRC's dose screening criterion for decommissioning of 25 mrem/year. As stated previously, a site resulting in a dose of 25 mrem per year or less is considered acceptable for unrestricted use. More about the excavation of the soil to the west of the pond is contained in section 2.4 of the attached GeoSyntec Consultants abandonment plan.

FINAL SITE DISPOSITION (SITE RESTORATION)

As part of the abandonment, the retention pond area will be restored to green space. Site restoration activities will include minor regrading of the area in order to prevent the accumulation of standing water on the soil cover while achieving grades consistent with the surrounding area. The retention pond cover will be seeded with native species grasses. Regrading of a portion of the excavated soil area outside of the pond will also take place in order to achieve consistency with pre-excavation grades in the area. The portion of the excavated soil area that is classified as a wetland area will remain a wetland area.

CONCLUSION

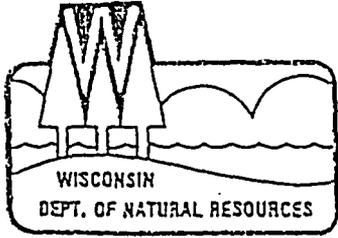
The PBNP retention pond abandonment plan outlined in this document is based on comprehensive studies of the pond sediments and the surrounding soils as well as advice from external consultants with experience in this field of work. We believe that the activities described in our plan comprise a prudent course of action that is protective of public health and the environment.

ATTACHMENT 1

NR 213 APPROVAL LETTER

1, 8, 2, 2

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES



Tommy G. Thompson, Governor
George E. Meyer, Secretary

PO Box 7921
101 South Webster Street
Madison, Wisconsin 53707-7921
TELEPHONE 608-266-2621
FAX 608-267-3579
TDD 608-267-6897

April 10, 1996

IN REPLY REFER TO: 3440

Mr. David Lee
Wisconsin Electric Power Co.
231 W. Michigan Ave.
P.O. Box 2046
Milwaukee, WI 53201-2046

SUBJECT: Ch. NR 213 WI Adm Code Lagoon Compliance Evaluations
Point Beach Nuclear Plant (Retention Basin); and
Oak Creek Power Plant (East and West Settling Basins)
FINAL DETERMINATION

Dear Mr. Lee:

The Department of Natural Resources, Industrial Wastewater Section has reviewed the above referenced reports submitted by Woodward-Clyde Consultants on behalf of Wisconsin Electric Power Company (WEPCO), dated September 1992, and the additional information provided by you on April 8, 1996.

The reports conclude that adverse impacts to waters of the state are not anticipated primarily because any and all leakage that may emigrate from these basins will discharge into Lake Michigan, and the water quality in the basins is suitable to meet the most restrictive water quality criteria listed in chs. NR 102 and NR 105 Wis. Adm. Code. WEPCO has consequently requested to maintain the basins for use as they currently exist.

The reports also contain information which indicates that groundwater is at or somewhat below the base of the basins at both facilities. Section NR 213.08(2)(c) requires a minimum separation distance of five feet between the base of an industrial wastewater lagoon and the top of the water table. Since these basins are not able to meet this requirement, an exemption would be needed for their continued use.

The Department has determined that the information provided is adequate to meet the requirements of ch. NR 213 Wis. Adm. Code and an exemption from the design standards and material requirements of ch. NR 213 Wis. Adm. Code is thus being granted. If you are aware of any changes in this information, please notify me. Additionally, please see that the following conditions are adhered to:

- 1. that the basins be maintained in a manner that discourages the growth of any and all vegetation; and

WEPCO Point Beach and Oak Creek Lagoon Evaluations
Final Determination
April 10, 1996

2. that the basins be maintained to avoid desiccation and cracking of the liners.

Thank you for your continued cooperation in this matter. I look forward to receiving your proposals for additional investigation at the Port Washington and Pleasant Prairie sites.

NOTICE OF APPEAL RIGHTS

If you believe that you have a right to challenge this decision, you should know that Wisconsin Statutes and administrative rules establish time periods within which requests to review Department decisions must be filed.

For judicial review of a decision pursuant to secs. 227.52 and 227.53, Wis. Stats., you have 30 days after the decision is mailed, or otherwise served by the Department, to file your petition with the appropriate circuit court and serve the petition on the Department. Such a petition for judicial review shall name the Department of Natural Resources as the respondent.

To request a contested case hearing pursuant to sec. 227.42, Wis. Stats., you have 30 days after the decision is mailed, or otherwise served by the Department, to serve a petition for hearing on the Secretary of the Department of Natural Resources. The filing of a request for a contested case hearing is not a prerequisite for judicial review and does not extend the 30-day period for filing a petition for judicial review.

This notice is provided pursuant to sec. 227.48(2), Wis. Stats.

Sincerely,



A. Nichol Kosewski, Hydrogeologist
Industrial Wastewater Section
Bureau of Wastewater Management

c:wpco.F1

cc: Paul Luebke, WW/2
Larry Benson, WW/2
Jeff Haack, Green Bay Area
Jerry Jarmuz, SED

ATTACHMENT 2
TCLP TEST RESULTS

TestAmerica

INCORPORATED

Ms. Bronia Grob
TELEDYNE BROWN ENGINEERING
ENVIRONMENTAL SERVICES
700 Landwehr Road
Northbrook, IL 60062

11/24/1999

NET Job Number: 99.12332

IEPA Cert. No.: 100221

WDNR Cert. No.: 999447130

A2LA Cert. No.: 0453-01

Enclosed is the Analytical and Quality Control reports for the following samples submitted to Bartlett Division of TestAmerica for analysis.

Project Description: Sludge Analysis

Sample Number	Sample Description	Date Taken	Date Received
553669	PBNP Retention Pond; ESG-8626	07/14/1999	11/05/1999

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. These results apply only to the samples analyzed. Reproduction of this report only in whole is permitted. Please refer to the enclosed "Key to Abbreviations" for definition of terms. Procedures used follow TestAmerica Standard Operating Procedures which reference the methods listed on your report. Should you have questions regarding procedures or results, please do not hesitate to call. TestAmerica has been pleased to provide these analytical services for you.

This Quality Control report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

Approved by:

Mary Pearson

Mary Pearson
Project Manager

ANALYTICAL REPORT

Ms. Bronia Grob
 TELEDYNE BROWN ENGINEERING
 ENVIRONMENTAL SERVICES
 700 Landwehr Road
 Northbrook, IL 60062

11/24/1999
 Sample No. : 553669
 Job No.: 99.12332

Sample Description: PBNP Retention Pond; ESG-8626
 Sludge Analysis

Date Taken: 07/14/1999 Date Received: 11/05/1999
 Time Taken: Time Received: 09:05

Analyte	Result	Flag	Units	Reporting Limit	Date Analyzed	Analyst Initials	Analytical Method
TCLP, ZHE Volatiles Prep	leached				11/09/1999	nbk	SW 1311
TCLP Metals Extraction	leached				11/08/1999	nbk	SW 1311
TCLP-Arsenic, ICP	<0.20		mg/L	0.20	11/11/1999	kdw	SW 6010B
TCLP-Barium, ICP	0.332		mg/L	0.020	11/11/1999	kdw	SW 6010B
TCLP-Cadmium, ICP	<0.010		mg/L	0.010	11/11/1999	kdw	SW 6010B
TCLP-Chromium, ICP	<0.040		mg/L	0.040	11/11/1999	kdw	SW 6010B
TCLP-Lead, ICP	<0.200		mg/L	0.200	11/11/1999	kdw	SW 6010B
TCLP-Mercury, CVAA	<0.0002		mg/L	0.0004	11/15/1999	vgm	SW 7470A
TCLP-Selenium, ICP	<0.20		mg/L	0.20	11/11/1999	kdw	SW 6010B
TCLP-Silver, ICP	<0.050		mg/L	0.050	11/11/1999	kdw	SW 6010B
TCLP Organic Prep	leached				11/08/1999	nbk	SW 1311
Prep, Pesticides 8081 TCLP	Extracted				11/18/1999	out	SW 3510C
Prep, Herbicides TCLP	Extracted				11/19/1999	out	SW 8151
TCLP-PESTICIDES 8081							
TCLP-gamma-BHC (Lindane)	<0.0400		mg/L	0.0400	11/22/1999	out	SW 8081A
TCLP-Chlordane	<0.005		mg/L	0.005	11/22/1999	out	SW 8081A
TCLP-Endrin	<0.0020		mg/L	0.0020	11/22/1999	out	SW 8081A
TCLP-Heptachlor	<0.0008		mg/L	0.0008	11/22/1999	out	SW 8081A
TCLP-Heptachlor epoxide	<0.0008		mg/L	0.0008	11/22/1999	out	SW 8081A
TCLP-Methoxychlor	<1.000		mg/L	1.000	11/22/1999	out	SW 8081A
TCLP-Toxaphene	<0.050		mg/L	0.050	11/22/1999	out	SW 8081A
Surr: Tetrachloroxylene (TCX)	50.0		%	D-110	11/22/1999	out	SW 8081A
Surr: Decachlorobiphenyl (DCB)	58.0		%	71-110	11/22/1999	out	SW 8081A

ANALYTICAL REPORT

Ms. Bronia Grob
 TELEDYNE BROWN ENGINEERING
 ENVIRONMENTAL SERVICES
 700 Landwehr Road
 Northbrook, IL 60062

11/24/1999

Sample No. : 553669

Job No.: 99.12332

Sample Description: PBNP Retention Pond; ESG-8626
 Sludge Analysis

Date Taken: 07/14/1999
 Time Taken:

Date Received: 11/05/1999
 Time Received: 09:05

Analyte	Result	Flag	Units	Reporting Limit	Date Analyzed	Analyst Initials	Analytical Method
TCLP-HERBICIDES 8151							
TCLP-2,4-D	<1.0		mg/L	1.0	11/19/1999	ouc	SW 8151
TCLP-2,4,5-TP	<0.10		mg/L	0.10	11/19/1999	ouc	SW 8151
Surr: DCAA	130.0		‡	23-131	11/19/1999	ouc	SW 8151
Prep. BNA Extract (TCLP)	extracted				11/11/1999	rap	SW 3510C
TCLP-ACID COMPOUNDS 8270							
TCLP-Cresols, Total	<0.10		mg/L	0.10	11/19/1999	p11	SW 8270B
TCLP-o-Cresol	<0.10		mg/L	0.10	11/19/1999	p11	SW 8270B
TCLP-m&p Cresol	<0.10		mg/L	0.10	11/19/1999	p11	SW 8270B
TCLP-Pentachlorophenol	<0.50		mg/L	0.50	11/19/1999	p11	SW 8270B
TCLP-2,4,5-Trichlorophenol	<0.50		mg/L	0.50	11/19/1999	p11	SW 8270B
TCLP-2,4,6-Trichlorophenol	<0.10		mg/L	0.10	11/19/1999	p11	SW 8270B
Surr: Phenol-d6	28.0		‡	10-94	11/19/1999	p11	SW 8270B
Surr: 2-Fluorophenol	41.5		‡	21-100	11/19/1999	p11	SW 8270B
Surr: 2,4,6-Tribromophenol	67.5		‡	10-123	11/19/1999	p11	SW 8270B

ANALYTICAL REPORT

Ms. Bronia Grob
 TELEDYNE BROWN ENGINEERING
 ENVIRONMENTAL SERVICES
 700 Landwehr Road
 Northbrook, IL 60062

11/24/1999
 Sample No. : 553669
 Job No. : 99.12332

Sample Description: PBNP Retention Pond; ESG-8626
 Sludge Analysis

Date Taken: 07/14/1999
 Time Taken:

Date Received: 11/05/1999
 Time Received: 09:05

Analyte	Result	Flag	Units	Reporting Limit	Date Analyzed	Analyst Initials	Analytical Method
TCLP-VOLATILES 8260							
TCLP-Benzene	<0.020		mg/L	0.020	11/15/1999	mjo	SW 8260B
TCLP-Carbon Tetrachloride	<0.020		mg/L	0.020	11/15/1999	mjo	SW 8260B
TCLP-Chlorobenzene	<0.020		mg/L	0.020	11/15/1999	mjo	SW 8260B
TCLP-Chloroform	<0.020		mg/L	0.020	11/15/1999	mjo	SW 8260B
TCLP-1,4-Dichlorobenzene	<0.020		mg/L	0.020	11/15/1999	mjo	SW 8260B
TCLP-1,2-Dichloroethane	<0.020		mg/L	0.020	11/15/1999	mjo	SW 8260B
TCLP-1,1-Dichloroethene	<0.020		mg/L	0.020	11/15/1999	mjo	SW 8260B
TCLP-Mechyl Ethyl Ketone	<0.40		mg/L	0.40	11/15/1999	mjo	SW 8260B
TCLP-Tetrachloroethene	<0.020		mg/L	0.020	11/15/1999	mjo	SW 8260B
TCLP-Trichloroethene	<0.020		mg/L	0.020	11/15/1999	mjo	SW 8260B
TCLP-Vinyl Chloride	<0.020		mg/L	0.020	11/15/1999	mjo	SW 8260B
Surr: Dibromofluoromethane	98.0		%	75-130	11/15/1999	mjo	SW 8260B
Surr: Toluene-d8	108.0		%	85-117	11/15/1999	mjo	SW 8260B
Surr: Bromofluorobenzene	114.0		%	80-116	11/15/1999	mjo	SW 8260B

ANALYTICAL REPORT

Ms. Bronia Grob
 TELEDYNE BROWN ENGINEERING
 ENVIRONMENTAL SERVICES
 700 Landwehr Road
 Northbrook, IL 60062

11/24/1999

Sample No. : 553669

Job No.: 99.12332

Sample Description: PBNP Retention Pond; ESG-8626
 Sludge Analysis

Date Taken: 07/14/1999
 Time Taken:

Date Received: 11/05/1999
 Time Received: 09:05

Analyte	Result	Flag	Units	Reporting Limit	Date Analyzed	Analyst Initials	Analytical Method
TCLP BASE NEUTRAL COMPOUNDS							
TCLP-1,4-Dichlorobenzene	<0.10		mg/L	0.10	11/19/1999	p11	SW 8270B
TCLP-Hexachloroethane	<0.10		mg/L	0.10	11/19/1999	p11	SW 8270B
TCLP-Nitrobenzene	<0.10		mg/L	0.10	11/19/1999	p11	SW 8270B
TCLP-Hexachlorobutadiene	<0.10		mg/L	0.10	11/19/1999	p11	SW 8270B
TCLP-2,4-Dinitrotoluene	<0.10		mg/L	0.10	11/19/1999	p11	SW 8270B
TCLP-Hexachlorobenzene	<0.10		mg/L	0.10	11/19/1999	p11	SW 8270B
TCLP-Pyridine	<0.10		mg/L	0.10	11/19/1999	p11	SW 8270B
Surr: Nitrobenzene-d5	67.0		%	35-114	11/19/1999	p11	SW 8270B
Surr: 2-Fluorobiphenyl	62.0		%	43-116	11/19/1999	p11	SW 8270B
Surr: Terphenyl-d14	63.0		%	33-141	11/19/1999	p11	SW 8270B

TestAmerica
KEY TO ABBREVIATIONS AND METHOD REFERENCES
INCORPORATED

- < : Less than; When appearing in the results column indicates the analyte was not detected at or above the reported value.
- mg/L : Concentration in units of milligrams of analyte per liter of sample. Measurement used for aqueous samples. Can also be expressed as parts per million (ppm).
- ug/g : Concentration in units of micrograms of analyte per gram of sample. Measurement used for non-aqueous samples. Can also be expressed as parts per million (ppm) or mg/Kg.
- ug/L : Concentration in units of micrograms of analyte per liter of sample. Measurement used for aqueous samples. Can also be expressed as parts per billion (ppb).
- ug/Kg : Concentration in units of micrograms of analyte per kilogram of sample. Measurement used for non-aqueous samples. Can also be expressed as parts per billion (ppb).
- TCLP : These initials appearing in front of an analyte name indicate that the Toxicity Characteristic Leaching Procedure (TCLP) was performed for this test.
- Surr: : These initials are the abbreviation for surrogate. Surrogates are compounds that are chemically similar to the compounds of interest. They are part of the method quality control requirements.
- % : Percent; To convert ppm to %, divide the result by 10,000.
To convert % to ppm, multiply the result by 10,000.
- ICP : Indicates analysis was performed using Inductively Coupled Plasma Spectroscopy.
- AA : Indicates analysis was performed using Atomic Absorption Spectroscopy.
- GFAA : Indicates analysis was performed using Graphite Furnace Atomic Absorption Spectroscopy.
- PQL : Practical Quantitation Limit; the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions.

Method References

- (1) Methods 1000 through 9999; see "Test Methods for Evaluating Solid Waste", USEPA SW-846, 3rd Edition, 1986.
- (2) ASTM "American Society for Testing Materials"
- (3) Methods 100 through 499; see "Methods for Chemical Analysis of Water and Wastes", USEPA, 600/4-79-020, Rev. 1983.
- (4) See "Standard Methods for the Examination of Water and Wastewater", 17th Ed, APHA, 1989.
- (5) Methods 600 through 625; see "Guidelines Establishing Test Procedures for the Analysis of Pollutants", USEPA Federal Register Vol. 49 No. 209, October 1984.
- (6) Methods 500 through 599; see "Methods for the Determination of Organic Compounds in Drinking Water," USEPA 600/4-88/039, Rev. 1988.
- (7) See "Methods for the Determination of Metals in Environmental Samples", Supplement I EPA-600/R-94/111, May 1994.
- (8) See "Standard Methods for the Examination of Water and Wastewater", 18th Ed., APHA, 1992.
- (9) Methods 1000 through 9999; see "Test Methods for Evaluating Solid Waste", USEPA SW-846, 3rd Edition, 1986, Including Updates I and II.
- (10) This method is from the 2nd Edition of "Test Methods for Evaluating Solid Waste", USEPA SW-846. It has been dropped from the 3rd Edition, 1986.

ATTACHMENT 3

ABANDONMENT PLAN BY GEOSYNTEC CONSULTANTS

Prepared for:
Wisconsin Electric- Wisconsin Gas Corporation
333 W. Everett Street
Milwaukee, Wisconsin 53290

ABANDONMENT PLAN

**WASTEWATER RETENTION POND
POINT BEACH NUCLEAR PLANT
TWO RIVERS, WISCONSIN**

Prepared by:



GEOSYNTEC CONSULTANTS

55 West Wacker Drive, Suite 1100

Chicago, Illinois 60601

(312) 658-0500

Project Number: CHE8094D-01

February 2002

TABLE OF CONTENTS

1.	INTRODUCTION	1
1.1	Terms of Reference.....	1
1.2	Project and Regulatory Background.....	1
1.3	Report Objectives	3
2.	ABANDONMENT OF WASTEWATER RETENTION POND.....	4
2.1	General.....	4
2.2	Site Preparation.....	5
2.3	Abandonment of the WWRP	5
2.3.1	Construction of Soil Cover	5
2.3.2	Requirements for Soil Cover	7
2.4	Removal of Potentially Impacted Soils from Outside WWRP.....	8
2.5	Final Regrading and End Use.....	9

FIGURES

LIST OF FIGURES

- Figure 1: Site Location - Point Beach Nuclear Plant
- Figure 2: Layout of Existing WWRP
- Figure 3: Soil Cover for WWRP
- Figure 4: Cross Section of Abandoned WWRP
- Figure 5: Lateral Extent of Potentially Impacted Soils

1. INTRODUCTION

1.1 Terms of Reference

This Abandonment Plan (AP) has been prepared by GeoSyntec Consultants (GeoSyntec) on behalf of Wisconsin Electric-Wisconsin Gas Corporation (WE-WG). This AP addresses the implementation of various activities associated with the abandonment of the wastewater retention pond (WWRP) at the Point Beach Nuclear Plant (PBNP) located in Two Rivers, Wisconsin.

1.2 Project and Regulatory Background

The PBNP is located in Manitowoc County, Wisconsin (Figure 1). The WWRP at the PBNP was constructed in 1968 and is located on the west side of the facility. The WWRP is approximately 140-ft long and 95-ft wide. Currently, there is a maximum thickness of sediment of approximately 5 ft in the WWRP. The WWRP liner comprises natural silty and sandy clays.

Process wastewaters and sewage treatment plant effluent are routinely routed to the WWRP. The sources of process wastewaters include the water treatment plant, plant floor drains, and turbine hall sumps. The sewage treatment plant receives water from the plant and energy information center sanitary systems and from floor drains. Treated sewage effluent flows by gravity to the sump pump station. This sump also collects water from the power plant water treatment clarifier and filter backwash. This combined water is then pumped to the WWRP with final discharge to Lake Michigan via the power plant cooling water discharge.

WE-WG anticipates that active wastewater treatment in the WWRP will end during 2002. It is WE-WG's intent, therefore, to abandon the WWRP in accordance with requirements described in ch. NR 213.07, which states:

"Lagoons, storage structures and treatment structures which will no longer be used, shall be properly abandoned within 2 years of the date on which waste material was last stored or treated. A plan outlining the proposed method of

abandonment shall be submitted to the department for approval. This plan shall contain a procedure to properly identify the presence and characteristics of any accumulated solid waste and provide appropriate removal, disposal or recycling or treatment alternatives in accordance with applicable solid and hazardous waste laws. All recycling, treatment, and disposal shall be conducted so as to protect public health and the environment. Unless otherwise directed by the department, all abandonment plans shall comply with ch. NR 720 for soils that have been contaminated by the contents of the lagoon, storage structure or treatment structure. The plan shall also address site restoration and any landscaping that will prevent accumulation of standing water or runoff. The department may require groundwater monitoring for a period of time after abandonment of the land treatment system to assess groundwater impacts. The design, installation, construction, abandonment and documentation of all monitoring wells shall be in accordance with the requirements on ch. NR 141."

In a letter dated 10 April 1996 from Wisconsin Department of Natural Resources (WDNR), WE-WG received exemption from specific Wisconsin Administrative Code ch. NR 213 design standards and material requirements for the WWRP. This exemption was based, in part, on information presented in the September 1992 Woodward-Clyde (WC) report titled, "NR 213 Compliance Evaluation, Results of Investigations, Point Beach Nuclear Plant, Two Rivers, Wisconsin" (1992 WC Report). The 1992 WC report concluded that the WWRP does not adversely affect waters of the state, including groundwater. Therefore, WE-WG proposes to satisfy the requirements of ch. NR 213.07 by covering the in-place WWRP sediment with soil. Because the uncovered WWRP sediment and liquid have been shown to not adversely affect waters of the state including groundwater, it can be concluded that the primary function of the proposed soil cover should be to promote drainage to prevent accumulation of standing water or runoff.

The regulation ch. NR 213.07 also indicates that, "*all abandonment plans shall comply with ch. NR 720 for soils that have been contaminated by the contents of the lagoon, storage structure or treatment structure.*" The abandonment of the WWRP will include soil removal activities in areas outside the limits of the WWRP. These areas had been in the discharge path of the WWRP prior to the modification of the

discharge pathway in the mid-1970s. These areas have been found to contain small amounts of radionuclides. WE-WG has developed an estimate of the distribution of these substances. As part of the abandonment of the WWRP, these potentially impacted soils will be removed and disposed of at a licensed off-site facility. As discussed in Section 2.4 of this AP, confirmation testing and/or sampling will be performed to establish that radionuclide levels are below those required for NRC decommissioning. A description of the procedures used to: (i) properly identify the presence and characteristics of any accumulated waste within the WWRP and; (ii) verify that NR 720 soil clean up levels are achieved for the potentially impacted soils is provided in the PBNP Retention Pond Abandonment Plan prepared by WE-WG.

1.3 Report Objectives

In the remainder of this AP, the major design elements of the WWRP abandonment are described including the in-place abandonment of the WWRP using a soil cover and the removal of potentially impacted soils from outside the footprint of the WWRP. This AP provides information on the implementation of the abandonment and criteria that will be used to abandon the WWRP consistent with the requirements of ch. NR 213.07.

2. ABANDONMENT OF WASTEWATER RETENTION POND

2.1 General

The abandonment of the WWRP comprises three primary design elements: (i) construction of a soil cover over the in-place sediment; (ii) removal and disposal of near-surface potentially impacted soils from outside the limits of the WWRP; and (iii) final grading of the abandoned WWRP and surrounding area. An additional design element includes improvement (i.e., strengthening) of the in-place WWRP sediment to facilitate soil cover construction by improving the load carrying capabilities of the in-place sediment.

The areas of the site where WWRP abandonment activities will be performed are shown on Figure 2. The overall construction sequence for the abandonment of the WWRP includes the following activities:

- site preparation;
- removal of WWRP liquids;
- in-place improvement of WWRP sediment;
- WWRP soil cover construction;
- excavation, shipping, and disposal of potentially impacted soils from outside the WWRP; and
- final regrading and implementation of end use requirements.

Work associated with the excavation, shipping, and disposal of potentially impacted soils from outside the WWRP may be performed at the same time as the activities associated with WWRP sediment improvement and soil cover construction over the WWRP.

2.2 Site Preparation

Normal site preparation activities associated with general earthwork will be required to implement the WWRP abandonment. These activities will include providing necessary temporary utilities (e.g., power, water, and telephone services) and establishing required site support facilities, equipment and material staging areas, and personnel and equipment decontamination facilities.

Before any construction occurs, erosion and sediment controls (e.g., silt fencing) will be placed around work areas and will also be placed so as to prevent adverse affects on low lying areas around the WWRP. WE-WG will secure an erosion and sedimentation control permit, as required. Other controls will be established to minimize run-on and off-site runoff during construction.

2.3 Abandonment of the WWRP

2.3.1 Construction of Soil Cover

The overall construction sequence for abandoning the WWRP is described below.

1. Liquids in the WWRP will be drained via the discharge weir structure at the southwest corner of the WWRP. Gravity drainage using the weir is anticipated to bring the water down to an elevation approximately 2 ft above the sediment surface in the vicinity of the weir. Further dewatering that may be required during construction will be achieved by pumping standing water via a discharge line to the bottom of the weir. This pump will be used throughout construction, as needed, to maintain a reasonably dewatered condition. All waters that enter the weir are conveyed to the plant before they eventually discharge to Lake Michigan under WPDES Permit No. WI-0000957-6.

Throughout dewatering operations, samples of the liquids will be taken to evaluate TSS levels. WE-WG will implement engineering measures during construction, as necessary, to assure that TSS are within currently acceptable levels.

2. The in-place sediment will be improved after dewatering the WWRP. As noted, the in-place sediment is weak and will not support the weight of construction equipment that will be used to construct the soil cover. For this project, it is anticipated that an excavator will be used to mix cement into the in-place sediment. The mix design (i.e., percentages of reagent and in-place sediment) will be evaluated in the laboratory prior to full-scale improvement operations and is discussed further in Section 2.3.2 of this AP. A total of approximately 2,000 yd³ of sediment will be improved to a maximum depth of approximately 5 ft. Reagent material will either be temporarily stored on-site or will be trucked in on an as-needed basis.
3. The improved sediment will be graded (i.e., relocated using bulldozers) to form the final slope configuration. This final slope configuration will prevent the accumulation of standing water on the soil cover during the post-abandonment period. During construction confirmation testing will be performed to demonstrate that the required strength of the improved sediment has been achieved. This testing will include excavating small test pits to approximately the bottom of the improved sediment to verify that appropriate mixing has been achieved and that the improved sediment is sufficiently strong to enable construction equipment to access the sediment surface.
4. The decommissioning of the weir structure will be one of the last activities to be performed. This decommissioning will include: (i) grouting the underground discharge line (see Figure 2) from the weir to approximately the manhole located just to the east of the WWRP; (ii) dismantling the aboveground (i.e., above the elevation of the existing sediment surface) walls of the weir structure; and (iii) backfilling the weir with controlled backfill material such as lean-mix concrete.
5. Installation of the soil cover will occur after all improvement activities are finished. The components of the soil cover for the WWRP and the improved sediment are shown in Figure 3. Installation of the soil cover will occur in general accordance with the following construction sequence:

- the 2-ft thick (min.) protective soil layer will be placed in lifts and appropriately moisture conditioned and compacted to achieve required grades; and
- a minimum of 0.5 ft of vegetative support soil (e.g., topsoil or appropriately amended soil) will be placed and seeded.

A cross section of the WWRP improved sediment and soil cover is shown on Figure 4.

2.3.2 Requirements for Soil Cover

The functional requirements of this soil cover include: (i) function with minimum maintenance; (ii) prevent the accumulation of standing water and minimize erosion of the soil cover; and (iii) accommodate settling and subsidence so that the integrity of the soil cover is maintained. This section addresses these requirements.

Sediment Improvement Testing

Prior to full-scale improvement operations, laboratory testing on sediment/reagent mixtures will be performed. The goal of the laboratory testing program is to identify a sediment/reagent mix design that results in a firm, soil-like material (which is not a solid or hazardous waste) that supports construction equipment with an appropriate margin of safety, and reduces long-term settlement of the soil cover. For this testing program, sediment samples from the WWRP will be collected and shipped to a licensed laboratory for testing. This sample collection activity will occur before any full-scale construction activities commence.

It is anticipated that cement will be used as the sole reagent. Combinations of sediment and cement will be used to form samples and laboratory unconfined compressive strength testing will be performed on these samples.

Soil Cover Settlement

Positive drainage needs to be maintained during the post-abandonment period. Differential settlements (which can result in the development of localized grade reversals) are expected to be negligible for the proposed soil cover primarily because

the improved sediment will be stiff and will undergo negligible compression (i.e., settlement) under the weight of the cover system and the as-constructed soil cover slope will be at least 2 percent.

Erosion of Soil Cover

To minimize the potential for significant erosion of the soil cover, topsoil (or appropriately amended soils) and vegetation will be selected to minimize the potential for significant erosion. Erosion is anticipated to be relatively insignificant for the WWRP soil cover.

2.4 Removal of Potentially Impacted Soils from Outside WWRP

The abandonment of the WWRP will also include the removal of potentially impacted soils from outside the WWRP. The lateral extent of these potentially impacted soils has been delineated and is shown in Figure 5. These areas became impacted as the result of aboveground operations, therefore it is expected that the vertical extent of these impacted soils will be limited to no greater than 1 ft.

The overall construction sequence for this work element of the WWRP abandonment is as follows:

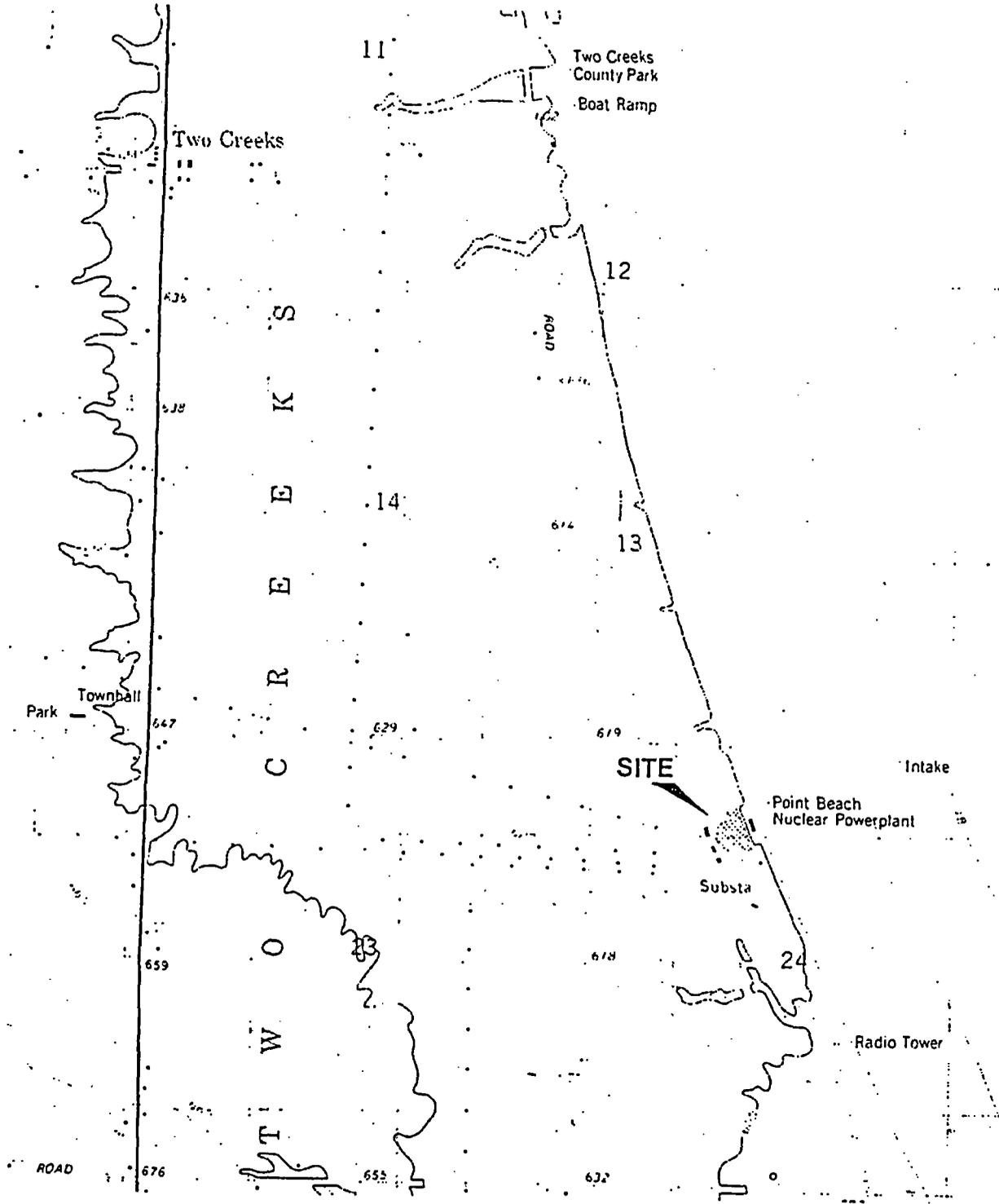
1. Trees and brush within the delineated areas will be cleared and removed. The above ground portion of these trees will be burned, chipped, or stockpiled on the site premises.
2. The work areas where excavation of impacted soils is to be performed will be accessed using small excavation equipment. All excavated soils will be transferred to the staging area of the site for impacted soil storage containers.
3. Appropriate shipping containers for the impacted soils will be used to ship the impacted soils to licensed off-site disposal facilities.
4. Each container will be shipped to a licensed off-site facility for disposal.

5. Confirmation testing and/or sampling to verify that appropriate clean-up levels have been met in the area outside the WWRP will be performed.

2.5 Final Regrading and End Use

Site restoration activities associated with the abandonment of the WWRP will include minor regrading of the WWRP berms and the excavated soil areas from outside the WWRP. These areas will be graded to be consistent with pre-excavation grades in these areas. Vegetation will be established over the soil cover using native species grasses.

SITE LOCATION POINT BEACH NUCLEAR PLANT



NOT TO SCALE

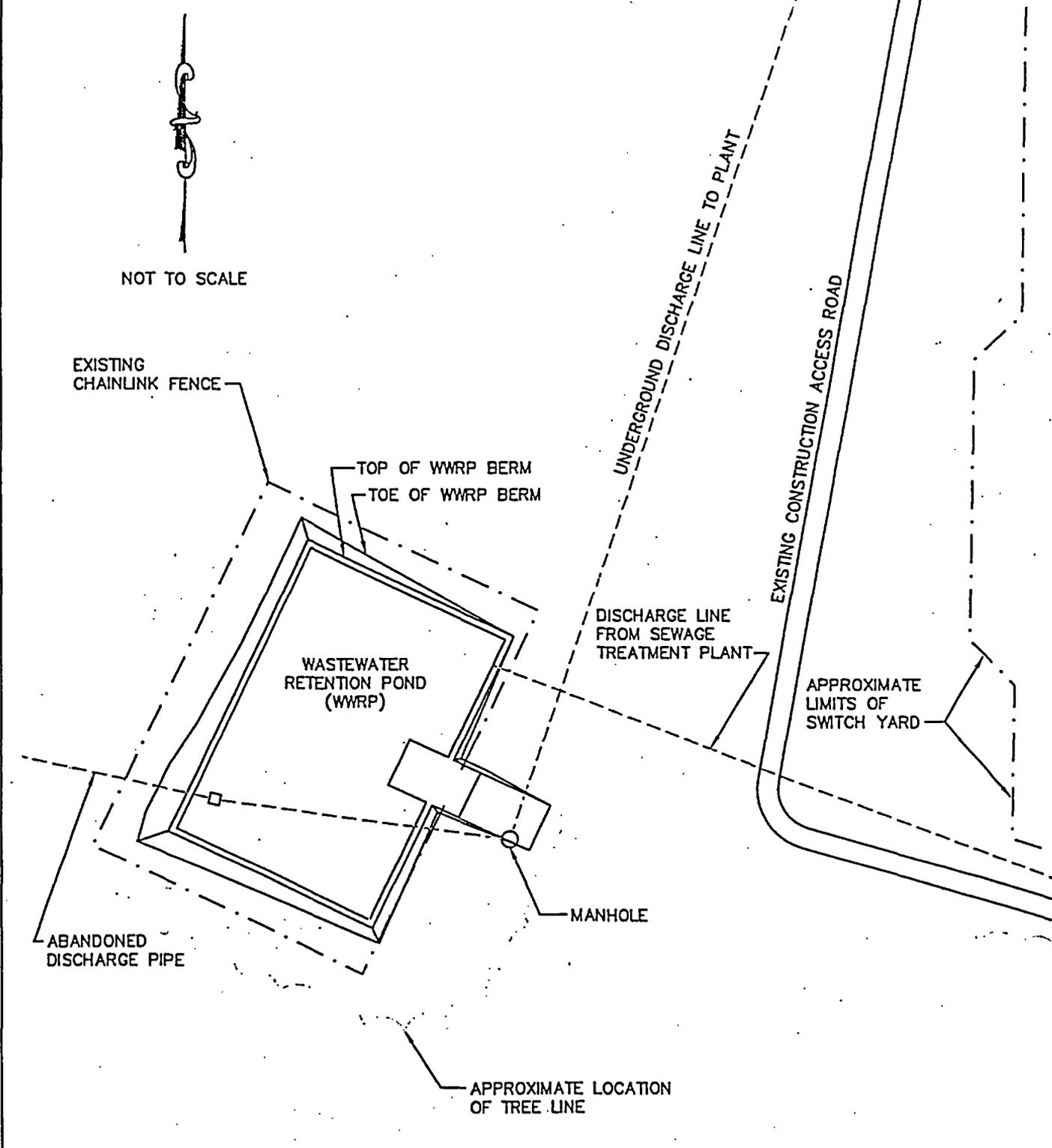


GEO SYNTEC CONSULTANTS

CHICAGO, ILLINOIS

FIGURE NO.	1
PROJECT NO.	CHE8094D-01
DOCUMENT NO.	Ch020004
FILE NO.	8094D001.cdr

LAYOUT OF EXISTING WWRP



NOT TO SCALE

EXISTING CHAINLINK FENCE

TOP OF WWRP BERM
TOE OF WWRP BERM

WASTEWATER RETENTION POND (WWRP)

DISCHARGE LINE FROM SEWAGE TREATMENT PLANT

UNDERGROUND DISCHARGE LINE TO PLANT

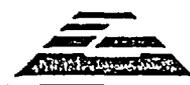
EXISTING CONSTRUCTION ACCESS ROAD

APPROXIMATE LIMITS OF SWITCH YARD

MANHOLE

ABANDONED DISCHARGE PIPE

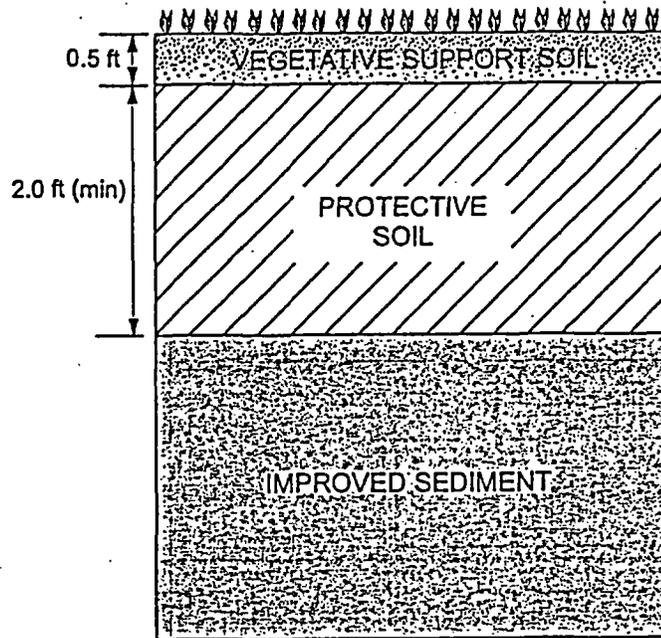
APPROXIMATE LOCATION OF TREE LINE



GEOSYNTEC CONSULTANTS
CHICAGO, ILLINOIS

FIGURE NO.	2
PROJECT NO.	CHE8094D
DOCUMENT NO.	Ch020004
FILE NO.	8094D001.dwg

SOIL COVER FOR WWRP

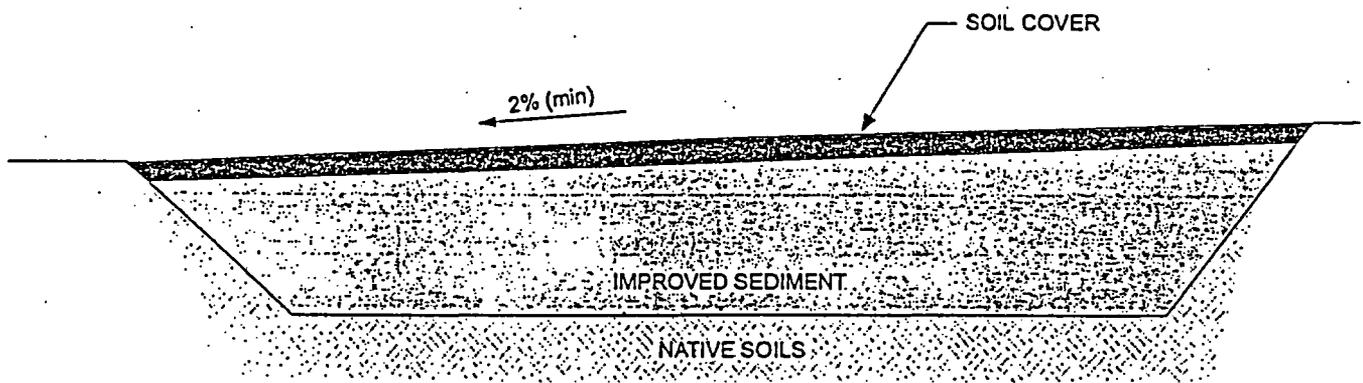


GEOSYNTEC CONSULTANTS

CHICAGO, ILLINOIS

FIGURE NO.	3
PROJECT NO.	CHE8094D-01
DOCUMENT NO.	Ch020004
FILE NO.	8094D001.cdr

CROSS SECTION OF ABANDONED WWRP



NOT TO SCALE

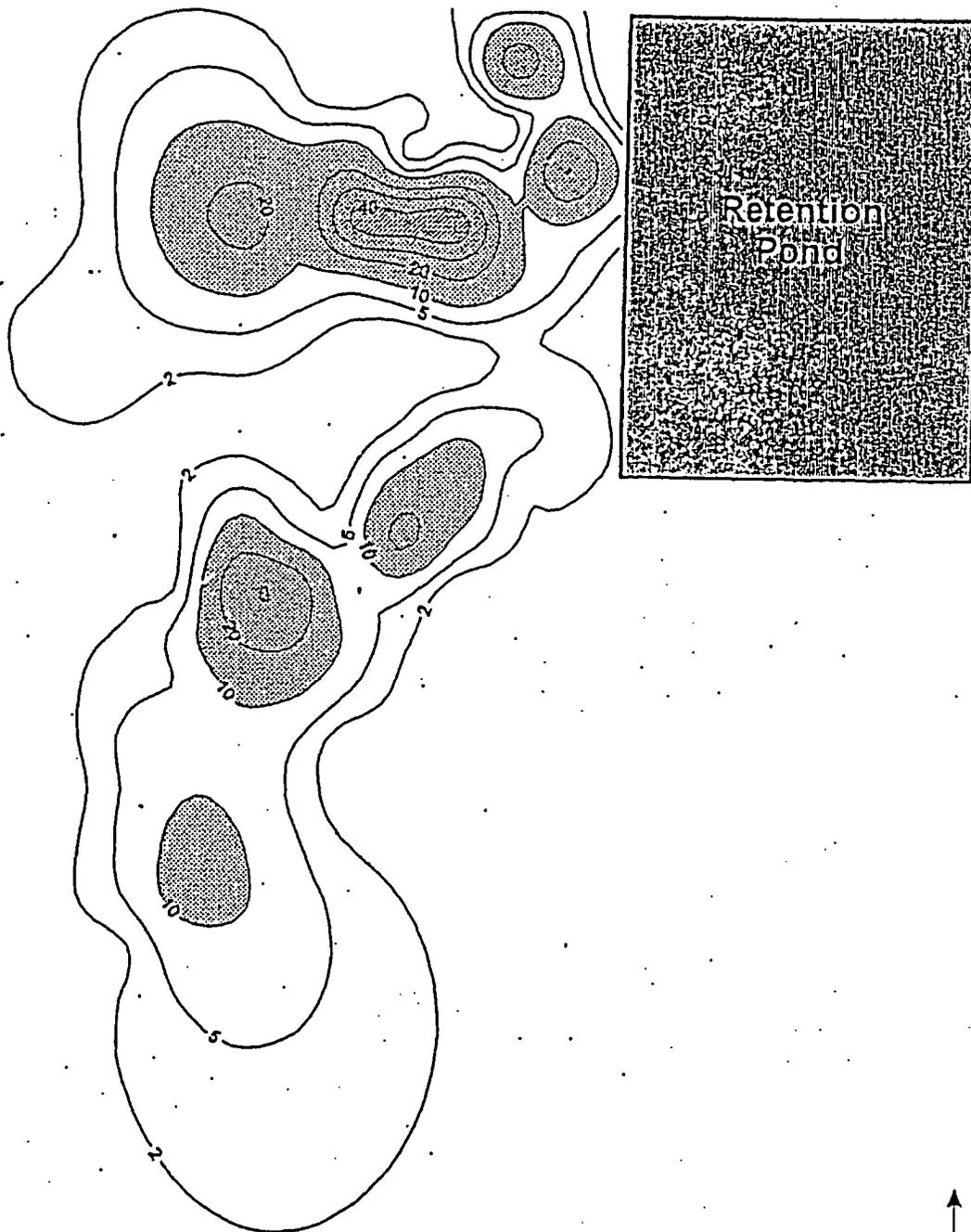


GEOSYNTEC CONSULTANTS

CHICAGO, ILLINOIS

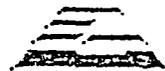
FIGURE NO.	4
PROJECT NO.	CHE8094D-01
DOCUMENT NO.	Ch020004
FILE NO.	8094D001.cdr

LATERAL EXTENT OF POTENTIALLY IMPACTED SOILS



APPROXIMATE SCALE
1" = 50 ft

SOURCE: WEPCO INTERNAL FILES
"Figure 2, Contours of Cs-137
Levels (pCi/g) in Soil"



GEOSYNTEC CONSULTANTS

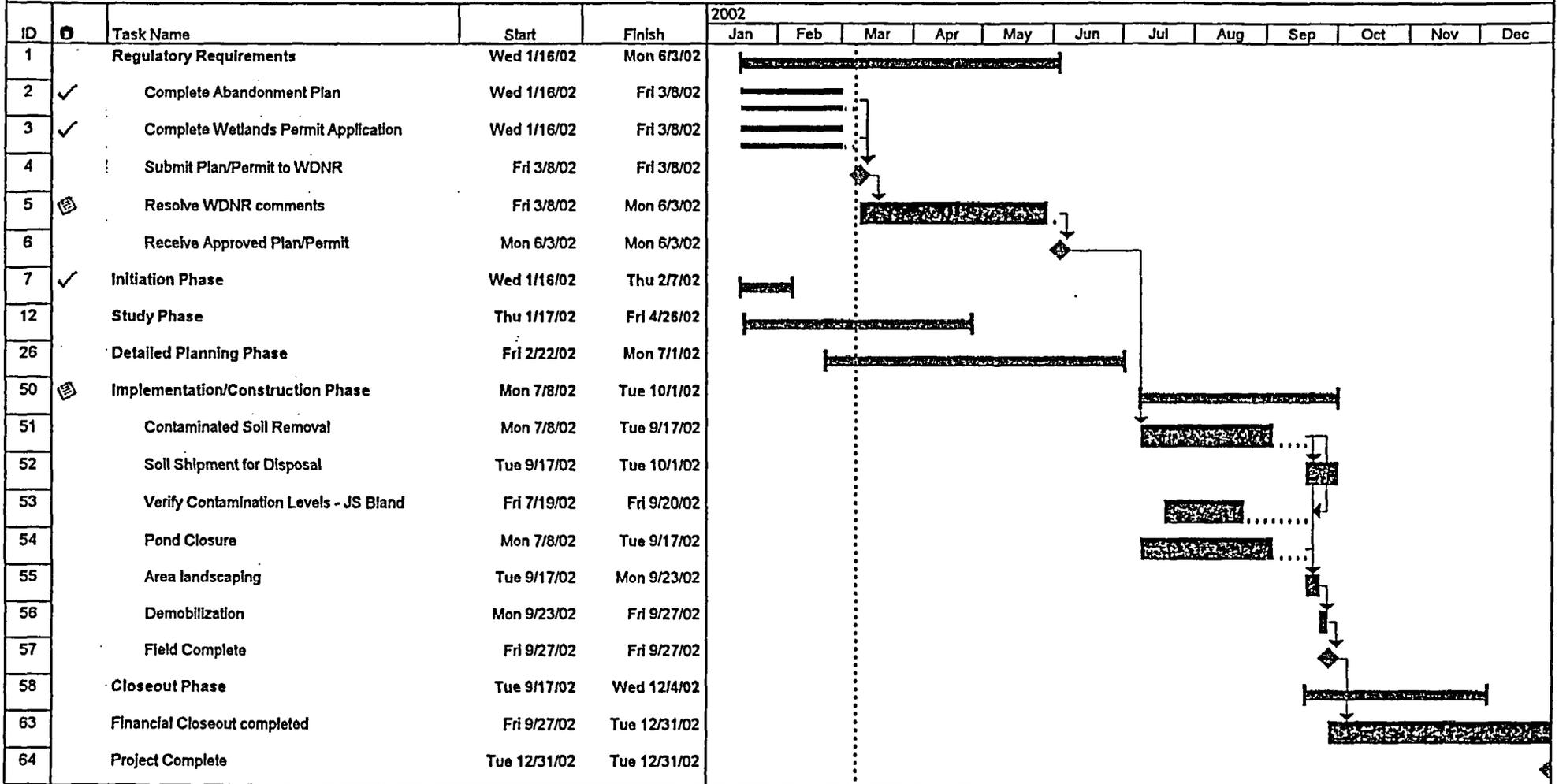
CHICAGO, ILLINOIS

FIGURE NO.	5
PROJECT NO.	CHE8094D-01
DOCUMENT NO.	Ch020004
FILE NO.	8094D001.cdr

ATTACHMENT 4

SCHEDULE

**PBNP WWRP Abandonment Project
Schedule**



Thu 3/7/02	Task	[Pattern]	Rolled Up Task	[Pattern]	External Tasks	[Pattern]
	Critical Task	[Pattern]	Rolled Up Critical Task	[Pattern]	Project Summary	[Pattern]
	Progress	[Pattern]	Rolled Up Milestone	[Pattern]	External Milestone	◆
	Milestone	◆	Rolled Up Progress	[Pattern]	External Milestone	◆
	Summary	[Pattern]	Split		

Polychlorinated Biphenyl

(PCB)

Transformer

Registration



Wisconsin Electric
231 W. Michigan
P.O. Box 2046
Milwaukee, WI 53201-2046
Phone 414 221-2345

November 13, 1998

Fibers & Organics Branch (7404)
Office of Pollution Prevention & Toxics
U.S. Environmental Protection Agency
401 M Street, SW
Washington, DC 20460

RE: PCB TRANSFORMER REGISTRATION

In accordance 40 CFR Part 761.30, Authorizations, attached is Wisconsin Electric Power Company's "PCB Transformer Registration" for our Point Beach Nuclear Plant.

If you have any questions or need additional information, please feel free to contact me at (414) 221-2181.

Very truly yours,

Tim G. Krueger
Hazardous Waste Specialist
Environmental Services

Attachment >

bcc: Richard Mende
ES File: In Service PCBs – Power Plants

PCB TRANSFORMER REGISTRATION

Return To:

Fibers & Organics Branch (7404)
Office of Pollution Prevention & Toxics
U.S. Environmental Protection Agency
401 M Street, S.W.
Washington, DC 20460

For Official Use Only

1. Company Name

Wisconsin Electric Power Co.

Address

P O Box 2046
Milwaukee, WI 53201

Contact Name & Phone #

Tim G. Krueger
(414) 221-2181

2. a. Location of PCB Transformer(s) - Location #1

Point Beach Nuclear Plant
6610 Nuclear Rd.
Two Rivers, WI 54241

2. a. Location of PCB Transformer(s) - Location #2

b. No. of Transformers and wt. (kg): 8-12,496 Kg.

b. No. of Transformers and wt. (kg):

c. Any transformers containing flammable dielectric fluid: Yes or No

c. Any transformers containing flammable dielectric fluid: Yes or No

2. a. Location of PCB Transformer(s) - Location #3

2. a. Location of PCB Transformer(s) - Location #4

b. No. of Transformers and wt. (kg):

b. No. of Transformers and wt. (kg):

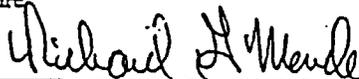
c. Any transformers containing flammable dielectric fluid: Yes or No

c. Any transformers containing flammable dielectric fluid: Yes or No

7. Certification

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18 U.S.C. 1001 and 15 U.S.C. 2615), I certify that the information contained in or accompanying this document is true, accurate, and complete. As to the identified section(s) of this document for which I cannot personally verify truth and accuracy, I certify as a company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate, and complete.

Signature

Name and Official Title (Type of Print)
Richard G. Mende, Manager

Date Signed

10-27-98

Paperwork Reduction Act Notice

The annual public reporting burden for this collection of information is estimated to average 2 hours per response. This estimate includes time for reading instructions, searching existing data sources, gathering and maintaining the needed data, and completing and reviewing collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden to: Director, OPPE Regulatory Information Division, U.S. Environmental Protection Agency (mail code 2137), 401 M Street, S.W., Washington, D.C. 20460. Include the OMB number identified above in any correspondence. Do not send the completed form to this address. The actual information or form should be submitted in accordance with the instructions accompanying the form, or as specified in the corresponding regulations.

Is your RETURN ADDRESS completed on the reverse side?

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

- 1. Addressee's Address
- 2. Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:
 Fibers + Organics Branch (7404)
 Ofc. of Pollution Prevention & Toxics
 US Environmental Protection Agency
 401 M Street, SW
 Washington, DC 20460

4a. Article Number
 Z 029 276 600

4b. Service Type
 Registered Certified
 Express Mail Insured
 Return Receipt for Merchandise COD

7. Date of Delivery
11/19/98

5. Received By: (Print Name)

8. Addressee's Address (Only if requested and fee is paid)

6. Signature: (Addressee or Agent)
X *[Signature]*

Thank you for using Return Receipt Service.

Is your RETURN ADDRESS completed on the reverse side?

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

- 1. Addressee's Address
- 2. Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:
 Fibers + Organics Branch (7404)
 Ofc. of Pollution Prevention & Toxics
 US Environmental Protection Agency
 401 M Street, SW
 Washington, DC 20460

4a. Article Number
 Z 029 276 600

4b. Service Type
 Registered Certified
 Express Mail Insured
 Return Receipt for Merchandise COD

7. Date of Delivery
11/19/98

5. Received By: (Print Name)

8. Addressee's Address (Only if requested and fee is paid)

6. Signature: (Addressee or Agent)
X *[Signature]*

Thank you for using Return Receipt Service.

Wastewater
Mercury Monitoring
Regulation

Unofficial Text (See Printed Volume). Current through date and Register shown on Title Page.

represented in the data base. The limitation for purposes of this section shall be equal to the lowest resultant value. A limitation can be calculated for an additive only if both LC₅₀ and EC₅₀ data for at least one of the invertebrate species and at least one of the fish species listed above are available.

(b) Effluent limitations based on chronic toxicity to aquatic life shall be established using the procedures described in this paragraph for additives whenever chronic toxicity criteria are not available from s. NR 105.06. The calculation of limitations shall be in accordance with the requirements of s. NR 106.06 (4) (b). In this calculation, the water quality criterion concentration shall be equal to the final acute value for that additive as provided in s. NR 105.05, or the effluent limitation as determined in par. (a), divided by the geometric mean of all the vertebrate and invertebrate species mean acute-chronic ratios determined in accordance with s. NR 105.06 (5) for that additive. A water quality criterion concentration may be calculated for an additive only if a final acute value, as provided in s. NR 105.05 or an effluent limitation as determined in par. (a), and an acute-chronic ratio for a vertebrate species and an acute-chronic ratio for an invertebrate species are available.

(c) Groundwater which is withdrawn from a location because of noncompliance with the standards contained in ch. NR 140 and which is used as noncontact cooling water shall not be subject to this exclusion.

(d) Regardless of the results of the analysis conducted under this section, the department may, whenever determined necessary, require whole effluent toxicity testing for a point source discharge.

(2) **INTERMITTENT DISCHARGES.** Effluent limitations derived as specified in s. NR 106.06 (3) and (4) for substances which rapidly degrade and which are discharged for less than 24 hours per day shall be calculated as specified in those subsections, unless the discharger demonstrates to the department that, as a result of the duration and frequency of the discharge, adverse effects will not occur when limitations are increased.

History: Cr. Register, February, 1989, No. 398, eff. 3-1-89; am. (1) (a), (b) and (2), cr. (1) (d), August, 1997, No. 500, eff. 9-1-97.

NR 106.11 Multiple discharges. Whenever the department determines that more than one discharge may be affecting the water quality of the same receiving water for one or more substances, the provisions of this chapter shall be used to calculate the combined allowable load from the discharges necessary to meet the water quality criteria for the substances. The resultant combined allowable load shall be divided among the various discharges using an allocation method based on site-specific considerations. Whenever the department makes a determination under this section, the department shall notify all permittees who may be affecting the water quality of the same receiving water of the determination and any limitations developed under this section. Permittees shall be given the opportunity to comment to the department on any determination made under this section.

History: Cr. Register, February, 1989, No. 398, eff. 3-1-89; am. Register, August, 1997, No. 500, eff. 9-1-97.

NR 106.12 Limitations for ammonia nitrogen. Regardless of any other requirement of this chapter, the department shall establish, on a case-by-case basis, water quality based effluent limitations for discharges of ammonia nitrogen. The criteria and limitations established in s. NR 104.02 (3) (a) 2. b. and 3. a. for discharges to surface waters not supporting a balanced aquatic community shall apply.

History: Cr. Register, February, 1989, No. 398, eff. 3-1-89.

NR 106.13 Leachate in publicly owned treatment works. Publicly owned treatment works subject to ch. NR 210 may demonstrate to the department that leachate from a licensed solid waste facility materially affects the quality of effluent from that treatment works and affects the capability of the treatment

works to meet the effluent limitations established under this chapter. If the department determines that a proper demonstration has been made, the department shall, within its capabilities, provide reasonable assistance to the owner of the treatment works and establish an appropriate schedule of compliance.

History: Cr. Register, February, 1989, No. 398, eff. 3-1-89.

NR 106.14 Analytical methods and laboratory requirements. (1) Methods used for analysis of samples shall be those specified in ch. NR 219 unless alternative methods are specified in the WPDES discharge permits. Where more than one approved analytical method for a pollutant exists, the department may specify in the permit which method shall be used.

(2) The permittee shall submit, with all monitoring results, appropriate quality control information, as specified by the department.

(3) The permittee shall report numerical values for all monitoring results greater than the limit of detection, as determined by a method specified by the department, unless analyte-specific instructions in the WPDES permit specify otherwise. The permittee shall appropriately identify all results greater than the limit of detection but less than the limit of quantitation.

History: Cr. Register, February, 1989, No. 398, eff. 3-1-89; renum. NR 106.14 to be (1), cr. (2) and (3), Register, August, 1997, No. 500, eff. 9-1-97.

NR 106.145 Mercury regulation. This section provides an alternative means of regulating mercury in WPDES permits through the establishment of alternative mercury effluent limitations and other requirements and is intended as a supplement to the authority and procedures contained in other sections of this chapter. For purposes of this section, an alternative mercury effluent limitation represents a variance to water quality standards specified in chs. NR 102 to 105.

(1) **FINDINGS.** On November 1, 2002, the department finds all of the following:

(a) Requiring all dischargers of mercury to remove mercury using wastewater treatment technology to achieve discharge concentrations necessary to meet water quality standards would result in substantial and widespread adverse social and economic impacts.

(b) Representative data on the relatively low concentrations of mercury in wastewater are rare and methods for collecting that data have only recently been developed.

(c) Appropriate mercury source reduction activities are environmentally preferable to wastewater treatment technology in many cases because wastewater treatment for mercury produces a sludge or other resultant wastewater stream that can be as much or more of an environmental liability than the untreated effluent.

(2) **DETERMINING THE NECESSITY OF MERCURY EFFLUENT LIMITATIONS.** (a) The department shall determine whether a mercury effluent limitation is necessary using the procedures in s. NR 106.05.

(b) For the determination under par. (a), the department shall use representative data that comply with all of the following:

1. Data shall meet the sampling and analysis requirements of subs. (9) and (10).

2. Data shall consist of at least 12 monitoring results spaced out over a period of at least 2 years.

(3) **DATA GENERATION.** (a) In this paragraph, "major municipal discharge" and "minor municipal discharge" have the meanings specified in s. NR 200.02 (7) and (8). If an applicant in any of the categories specified in this subsection does not have sufficient discharge data that meet the criteria of sub. (2) at the time of application for permit reissuance, the reissued permit shall require the permittee to monitor and report mercury at the following frequency and location:

Unofficial Text (See Printed Volume). Current through date and Register shown on Title Page.

1. Monthly influent and effluent for a major municipal discharge with an average flow rate greater than or equal to 5 million gallons per day.

2. Once every 3 months influent and effluent for a major municipal discharge with an average flow rate greater than or equal to one million gallons per day but less than 5 million gallons per day.

3. Once every 3 months influent and effluent for a minor municipal discharge if there are 2 or more exceedances in the last 5 years of the high quality sludge mercury concentration of 17 mg/kg specified in s. NR 204.07 (5).

4. Monthly effluent for an industrial discharge that the department determines is likely to contribute net discharges of mercury to the environment or if sludge or biosolids mercury concentrations indicate a source of mercury.

5. Once every 3 months effluent for an industrial discharge with an average flow rate, excluding noncontact cooling water as defined in s. NR 205.03 (21), of more than 100,000 gallons per day and the department has no information on mercury concentrations in similar discharges. The department may exempt discharges in this category if the department determines that there is little risk that the effluent will contain mercury.

Note: Any permittee who believes that a significant portion of the mercury in its effluent originates from its intake of surface water is encouraged to provide results of intake monitoring.

6. The department may reduce monitoring frequency from monthly to once every 3 months for discharges described in subs. 1. and 4. after at least 12 representative results have been generated.

(b) The department may require mercury monitoring for other discharges not included in one of the categories specified in par. (a) if the department has a reasonable expectation that the discharge includes significant quantities of mercury.

(c) Permittees shall collect and analyze samples according to the requirements in subs. (9) and (10).

(4) ALTERNATIVE MERCURY EFFLUENT LIMITATION ELIGIBILITY.

(a) When the department makes a determination of the necessity for a water quality based effluent limitation for mercury under sub. (2), the department shall determine if an alternative mercury effluent limitation is justified based on information submitted by the permittee in an alternative mercury effluent limitation application.

(b) The department may not establish an alternative mercury effluent limitation for a new discharge to waters in the Great Lakes system, as defined in s. NR 102.12 (1), unless the proposed discharge is necessary to alleviate an imminent and substantial danger to the public health or welfare. For the purposes of this section, a new discharger is any building, structure, facility or installation from which there is or may be a discharge of pollutants, as defined in s. NR 200.02 (4), the construction of which commenced after November 1, 2002. An existing discharger that relocates its outfall after November 1, 2002 may not be considered a new discharger for purposes of this paragraph. Relocation includes the diversion of a discharge from a land treatment system or systems to a surface water.

(c) The term of an alternative mercury effluent limitation may not extend beyond the term of the permit.

(d) An alternative mercury effluent limitation may be renewed using the procedures and requirements in subs. (5) to (8). An alternative mercury effluent limitation may not be renewed if the permittee did not substantially comply with all of the mercury-regulation conditions of the previous permit.

(5) CALCULATION OF AN ALTERNATIVE MERCURY EFFLUENT LIMITATION. (a) An alternative mercury effluent limitation shall equal the upper 99th percentile of representative daily discharge concentrations as calculated under s. NR 106.05 (4) (a), except as provided in par. (c).

(b) The alternative mercury effluent limitation shall be expressed as a daily maximum concentration.

(c) An alternative mercury effluent limitation may not be greater than the alternative mercury effluent limitation contained in the previous permit, unless the permittee demonstrates that the previous alternative mercury effluent limitation was based on monitoring that did not represent actual discharge concentrations.

(6) DEPARTMENT ACTION ON ALTERNATIVE MERCURY EFFLUENT LIMITATION APPLICATIONS. (a) The department shall establish an alternative mercury effluent limitation for a discharger when all of the following have been met:

1. The information provided in the alternative mercury effluent limitation application described in sub. (8) supports establishing the alternative mercury effluent limitation.

2. The permittee and the department agree upon the alternative mercury effluent limitation and the specific permit language requiring implementation of the pollution minimization program described in sub. (7).

(b) If the information provided in the alternative mercury effluent limitation application does not support establishing an alternative mercury effluent limitation or if the department and the permittee cannot agree on the alternative mercury effluent limitation and the specific permit language incorporating the pollutant minimization program, the department shall include the water quality based effluent limitation or limitations in the permit. This paragraph does not prohibit the department from seeking and the applicant providing supplemental information after the initial application is submitted.

(c) If the department grants an alternative mercury effluent limitation, the permit shall require monitoring subject to the data quality requirements of subs. (9) and (10), at the following locations:

1. Effluent for both municipal and industrial discharges.
2. Influent and sludge or biosolids for major and minor municipal discharges.

(7) POLLUTANT MINIMIZATION PROGRAMS. (a) If the department grants an alternative mercury effluent limitation under sub. (6), the reissued permit shall require the permittee to implement a pollutant minimization program as defined in s. NR 106.04 (5) and detailed for mercury in this subsection.

(b) If the reissued permit requires monthly data generation under sub. (3) (a) 1. or 4., the permit shall contain a special condition that triggers a pollutant minimization program if the first 24 months of data demonstrate that a limit will be necessary under sub. (2). The permit shall also require that the permittee do all of the following:

1. Submit to the department within 36 months of permit reissuance a pollutant minimization program plan meeting the requirements specified in this subsection.
2. Implement the pollutant minimization program following submittal of the plan.
3. Submit the first annual status report required in par. (g) within 48 months of permit reissuance.

(c) For municipal permittees, a pollutant minimization program shall consist of all of the following elements:

1. Source identification.
2. Activities to help educate the general public, health professionals, school teachers, laboratory personnel or other professionals about ways to reduce use of mercury-containing products, recycle mercury-containing products and prevent spills.

3. A program for collecting mercury from the permittee's sewer system users. This program may be independently operated by the permittee, jointly by the permittee and others or by another governmental unit.

Unofficial Text (See Printed Volume). Current through date and Register shown on Title Page.

4. Other activities that the department, in consultation with the permittee, deems appropriate for the individual permittee's circumstances.

(d) For industrial permittees, a pollutant minimization program may consist of any of the following elements:

1. Source identification and inventory.
2. Improvement of operational, maintenance or management practices.
3. Substitution of raw materials or chemical additives with low-mercury alternatives.
4. Institution of alternative processes.

(e) In assessing the appropriate elements for a pollutant minimization program, the department may consider any of the following:

1. The type of discharger.
2. The operations that generate the wastewater.
3. The level of mercury in the effluent, influent and biosolids or sludge.
4. The costs of potential source reduction measures.
5. The environmental costs and benefits of the pollutant minimization program elements.
6. The characteristics of the community in which the discharger is located.
7. The opportunities for material substitution.
8. The opportunities available for support from or cooperation with other organizations.
9. The actions the discharger has taken in the past to reduce mercury use or discharges.
10. Any other relevant information.

(f) The pollutant minimization program plan shall include all of the following:

1. Identify specific activities to be undertaken and a relative timeline to implement those activities.
2. State which, if any, activities have already been implemented and how effective they were in reducing potential and actual mercury discharges.
3. Commit the permittee to document how the pollutant minimization program plan was implemented including measures such as the number of contacts of various types made, programs implemented and other activities.
4. Provide for steps to measure the effectiveness of the pollutant minimization program elements in reducing potential and actual mercury discharges. Where the permittee regularly monitors influent, effluent, sludge or biosolids for mercury, measures shall include any changes in mercury concentrations over comparable historic data. Where practicable, other measures or estimates of mercury reductions from programs such as mercury recycling, collection or disposal may also be included.

(g) Within 12 months of the beginning of implementation of the pollutant minimization program and annually thereafter, the permittee shall report to the department on the progress of the pollutant minimization program as required in s. NR 106.04 (5). This annual report shall include all of the following:

1. An evaluation of the effectiveness of the program in accordance with the plan.
2. Identification of barriers that have limited program effectiveness and adjustments to the program that will be implemented during the next year to help address these barriers.

(h) Permittees may collaborate with one another or other parties to plan and implement a pollutant minimization program.

Note: Permittees that do not prepare or effectively implement a pollutant minimization program are subject to regulatory requirements for mercury, without alternative mercury effluent limitations to water quality standards. For municipal permittees this may mean development and enforcement of mercury discharge standards for users of the public sewerage system pursuant to s. NR 211.10 (3). For users of the municipal sewerage system this may mean changes in processes, installation of treat-

ment technology, or other means to comply with the municipal mercury discharge standards pursuant to s. NR 211.10 (1). Implementation of the municipal mercury discharge standards may require a program of user discharge permits and wastewater discharge monitoring.

(8) ALTERNATIVE MERCURY EFFLUENT LIMITATION APPLICATIONS. (a) To apply for an alternative mercury effluent limitation under this section, a permittee shall do all of the following:

1. Submit an alternative mercury effluent limitation application at the same time as the application for permit reissuance following data generation.

2. State the basis for concluding that wastewater treatment technology for mercury is impractical.

3. Supply representative effluent monitoring results of sufficient number and analytical sensitivity to quantify with reasonable certainty the concentration and mass of mercury discharged. Representative sample results shall meet all of the following requirements:

- a. Be of sufficient quantity to allow calculation of the upper 99th percentile values pursuant to s. NR 106.05 (5).

- b. Reasonably represent current conditions.

- c. Meet the data quality requirements of subs. (9) and (10).

- d. Represent a time period of at least 2 years.

4. Submit a pollution minimization program plan described in sub. (7) (f).

(b) A permittee applying for renewal of an alternative mercury effluent limitation previously granted shall follow the procedures in par. (a) except for all of the following:

1. The permittee shall submit information indicating whether the permittee substantially complied with mercury regulation conditions of the existing permit.

2. A new pollutant minimization program plan shall re-evaluate the plan required under the previous permit.

(9) SAMPLING REQUIREMENTS. (a) Sample types may be grab or 24-hour composite. "Grab sample" and "24-hour composite sample" have the meanings specified in s. NR 218.04.

(b) Sample collection methods shall be consistent with *EPA Method 1669: Sampling Ambient Water for Trace Metals at EPA Water Quality Criteria Levels*, EPA-821-R-96-011.

Note: This method provides flexible procedures for collecting samples under clean conditions. Sample collection personnel may modify this procedure or eliminate steps if the modification does not lead to unacceptable contamination of the samples. This method may be accessed on the department's website at <http://www.dnr.state.wi.us/org/water/wm/ww/mercury/1669.pdf>.

(c) Requirements for field blanks are as follows. A field blank means an aliquot of mercury-free reagent water that is placed in a sample container, shipped to the field and treated as a sample in all respects, including contact with the sampling devices and exposure to sampling site conditions, filtration, storage, preservation, and all analytical procedures. The purpose of the field blank is to determine whether the field or sample transporting procedures and environments have contaminated the sample:

1. At least one field blank shall be collected at each site for each day a sample is collected. If more than one sample is collected in a day, at least one field blank for each 10 samples collected on that day shall be collected.

2. If mercury or any potentially interfering substance is found in the field blank at a concentration equal to or greater than 0.5 ng/L, the limit of detection or one-fifth the level in the associated sample, whichever is greater, results for associated samples may not be used for regulatory compliance purposes unless the conditions in subd. 3. are met.

3. If at least 3 field blanks are collected on a day when samples are collected and the average mercury concentration of the field blanks plus 2 standard deviations is less than or equal to one-half of the level in the associated sample or less than the lowest water quality criterion for mercury found in ch. NR 105, whichever is greater, results may be used.

Unofficial Text (See Printed Volume). Current through date and Register shown on Title Page.

Note: As of November 1, 2002 the lowest water quality criterion listed in ch. NR 105 is 1.3 ng/L.

4. Once a permittee demonstrates the ability to collect samples from a given site using an established procedure that meets the use-criteria of subd. 2., the permittee may decrease the number of field blanks to no fewer than one field blank for each 4 sampling days.

a. The initial demonstration shall consist of at least 6 consecutive sampling days.

b. If the permittee makes significant changes to the sampling procedure or sampling personnel, the 6-day demonstration shall be repeated.

c. If after reducing the field blank frequency, a field blank fails to meet the use-criteria, the permittee shall take corrective action and return to collecting field blanks on each sampling day until it can meet the use-criteria for at least 3 consecutive sampling days.

d. In no case may the permittee decrease field blanks to fewer than one for each 10 samples.

5. The permittee shall report, but may not subtract, field blank concentrations when reporting sample results.

Note: When using the data, the department may subtract field blanks from sample concentrations on a case-by-case basis.

(10) LABORATORY ANALYSIS REQUIREMENTS. (a) In this subsection, "method blank", "matrix spike" and "limit of detection" have the meanings specified in s. NR 149.03.

(b) The analytical method used shall be sensitive enough to quantify mercury concentrations in the sample or mercury concentrations down to the lowest water quality criterion found in ch. NR 105, whichever is greater.

(c) The department may exempt a permittee from the sensitivity requirement in par. (b) if the permittee can demonstrate to the department's satisfaction that the specific effluent matrix does not allow this level of sensitivity using the most sensitive approved method with all reasonable precautions.

(d) The laboratory performing the analyses shall be certified under ch. NR 149 for low-level mercury analyses. Until low-level mercury certification is available, the lab shall be certified under ch. NR 149 for mercury and recognized by the department as having demonstrated its low-level mercury capabilities under the emerging technology provision contained in s. NR 149.12 (2).

(e) Method blanks analyzed concurrently with samples shall be reported with sample results. Method blanks may be subtracted from sample results unless concentrations of mercury in the method blank exceed the laboratory's limit of detection, 0.5 ng/L or 5% of the sample concentration, whichever is greater.

(f) Matrix spikes analyzed concurrently with samples shall have recoveries between 71 and 125 percent.

(11) DATA REJECTION. The department may reject any sample results if data quality requirements specified in subs. (9) and (10) are not met or if results are produced by a laboratory that is not in compliance with certification requirements specified in ch. NR 149.

(12) APPLICABILITY OF THE VARIANCE PROCESS UNDER S. 283.15, Stats. If a water quality based effluent limitation is included in a permit under sub. (6) (b), a permittee may apply to the department for a variance from the water quality standard used to derive the limitation following the procedure specified in s. 283.15, Stats. Where a permittee has been granted an alternative mercury effluent limitation under this section, the procedures of s. 283.15, Stats., are not applicable.

History: CR 02-019: cr. Register October 2002 No. 562, eff. 11-1-02.

NR 106.15 Limitations for mercury. Regardless of the effluent limitations determined under this chapter, the discharge of organic mercury compounds, inorganic mercury compounds, and metallic mercury shall not exceed the requirements in s. 281.17 (7), Stats., and ch. NR 100.

History: Cr. Register, February, 1989, No. 398, eff. 3-1-89.

NR 106.16 Additivity of dioxins and furans. The 2,3,7,8-TCDD toxicity equivalence concentration in effluent shall be used when developing waste load allocations and for purposes of establishing water quality based effluent limits.

(1) For the chlorinated dibenzo-p-dioxins (CDDs) listed in Tables 7, 8 and 9 in ch. NR 105, the potential adverse additive effects of all dioxin (CDD) and chlorinated dibenzofuran (CDF) congeners in effluents shall be accounted for as specified in this section.

(2) The Toxicity Equivalency Factors (TEFs) in Table 1 and Bioaccumulation Equivalency Factors (BEFs) in Table 2 shall be used when calculating a 2,3,7,8-TCDD toxicity equivalence concentration in effluent to be used when implementing both human health noncancer and cancer criteria. The chemical concentration of each CDD and CDF in effluent shall be converted to a 2,3,7,8-TCDD toxicity equivalence concentration in effluent by using the following equation:

$$(TEC)_{TCDD} = \sum (C)_x (TEF)_x (BEF)_x$$

where:

$(TEC)_{TCDD}$ = 2,3,7,8-TCDD toxicity equivalence concentration in effluent

$(C)_x$ = concentration of total chemical x in effluent

$(TEF)_x$ = TCDD toxicity equivalency factor for x from table 1

$(BEF)_x$ = TCDD bioaccumulation equivalency factor for x from table 2

Table 1

Toxicity Equivalency Factors for CDDs and CDFs

Congener	TEF
2,3,7,8-TCDD	1.0
1,2,3,7,8-PeCDD	0.5
1,2,3,4,7,8-HxCDD	0.1
1,2,3,6,7,8-HxCDD	0.1
1,2,3,7,8,9-HxCDD	0.1
1,2,3,4,6,7,8-HpCDD	0.01
OCDD	0.001
2,3,7,8-TCDF	0.1
1,2,3,7,8-PeCDF	0.05
2,3,4,7,8-PeCDF	0.5
1,2,3,4,7,8-HxCDF	0.1
1,2,3,6,7,8-HxCDF	0.1
2,3,4,6,7,8-HxCDF	0.1
1,2,3,7,8,9-HxCDF	0.1
1,2,3,4,6,7,8-HpCDF	0.01
1,2,3,4,7,8,9-HpCDF	0.01
OCDF	0.001