

we energies

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June 24, 2004

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

**SUBJECT: POINT BEACH NUCLEAR PLANT
COMMENTS on PROPOSED WPDES PERMIT No. WI-0000957-07-0**

Dear Mr. Luebke:

Wisconsin Electric Power Company (doing business as We Energies) appreciates the opportunity to review and provide comments on the proposed Wisconsin Pollutant Discharge Elimination System (WPDES) permit for Point Beach Nuclear Plant. We have only one comment, which is described in detail below.

Section 4.1 Mercury Pollutant Minimization Program –

The schedule of compliance in Section 4.1 of the proposed permit outlines a response to some mercury sampling results for Sample Point 105 (wastewater effluent) that were found to be higher than expected. The source of the mercury was traced back to the plant chemistry laboratory, where a reagent containing mercuric iodide was being used to conduct ammonia analyses. Since then, a new method for conducting ammonia analyses has been implemented, which utilizes ion chromatography rather than the mercuric reagent. Two rounds of sampling were conducted in May, 2004 to verify that the source of the mercury has been eliminated. The results of the sampling are enclosed. The results show that the concentration of mercury at Sample Point 105 ranges from 10.5 ppt (ng/L) to 13.6 ppt, while the concentration at the intake and at Outfall 002 ranges from 0.3 to 0.4 ppt. Discharges routed through Sampling Point 105 were directed to Outfall 002 during the time of the sampling. (Note: Outfall 001 could not be sampled because Unit 1 was in a refueling outage at the time; however, Outfall 002 is substantially identical to Outfall 001 in terms of water quality.)

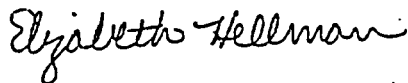
We believe that the remaining low level of mercury at Sample Point 105 is the result of concentration of the *background* mercury entering the plant from Lake Michigan. At the time of the sampling, two modes of mercury concentration were likely in occurring. First, the microfiltration unit that is part of the makeup water treatment system removes solids from the lake and concentrates them by a factor of 8 to 10 in the backwashes that get sent to the wastewell. Although solids are removed prior to discharge through Sample Point 105, some solids do get discharged (within the limits specified in the permit) and mercury associated with those solids could have contributed to the mercury concentration observed at Sample Point 105. Second, dissolved mercury was likely removed from the microfiltration unit filtrate as the filtrate passed through the ion exchange softeners (the next step in the makeup water treatment process). During regeneration of the softeners, the mercury removed by the ion exchange resin would have been sent to the wastewell. The softeners were typically regenerated daily after processing approximately 400,000 gallons of lake water, and the wastewell normally holds about 11,000 gallons (24,000 gallons maximum). Therefore, concentrating 0.3 to 0.4 ppt of mercury from 400,000 gallons of lake water down to 11,000 gallons of regenerant, etc. could result in a dissolved mercury concentration in the range of what was detected at Sample Point 105.

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Given that the concentration of mercury detected in the outfall was well below any water quality-based effluent limit that might be established, and given that the plant processes do not appear to be adding any mercury to the wastewater discharged, a mercury pollutant minimization program is not needed. Therefore, we request that the Mercury Pollutant Minimization Program schedule of compliance in Section 4.1 be removed from the proposed permit.

If you have any questions or need any further information, please call me at (414) 221-3235.

Sincerely,



Elizabeth Hellman, P.E.
Principal Environmental Strategist

Enclosures

cc: Mr. David Gerdman, DNR – Mishicot

To: Russ Rick
A231

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From Laboratory Services Division
PSB Annex A070
WDNR Cert # 241329000

Report Date: Thursday, May 13, 2004

The following are the analytical results for the sample(s) received by Laboratory Services on 5/5/04 :

Sample Description: POINT BEACH SP 105 - #1
Sample ID: AC40342 Serial/Impact ID: 0
Sample Collector: R.RICK Sample Collection Date: 5/5/04 Collection Time: 10:15
Order Number: 3.0001-01-0021

<u>Parameter</u>	<u>Result</u>	<u>MDL</u>	<u>Units</u>	<u>Analysis Date</u>	<u>Result Flag</u>	<u>Analysis Method</u>	<u>Analyst</u>
Mercury-low level	13.6	0.20	ppt	5/12/04		EPA 1631	KWH

Sample Description: POINT BEACH SP 105 - #2
Sample ID: AC40343 Serial/Impact ID: 0
Sample Collector: R.RICK Sample Collection Date: 5/5/04 Collection Time: 10:15
Order Number: 3.0001-01-0021

<u>Parameter</u>	<u>Result</u>	<u>MDL</u>	<u>Units</u>	<u>Analysis Date</u>	<u>Result Flag</u>	<u>Analysis Method</u>	<u>Analyst</u>
Mercury-low level	12.2	0.20	ppt	5/12/04		EPA 1631	KWH

Sample Description: POINT BEACH SP 105 - FIELD BLANK
Sample ID: AC40344 Serial/Impact ID: 0
Sample Collector: R.RICK Sample Collection Date: 5/5/04 Collection Time: 10:15
Order Number: 3.0001-01-0021

<u>Parameter</u>	<u>Result</u>	<u>MDL</u>	<u>Units</u>	<u>Analysis Date</u>	<u>Result Flag</u>	<u>Analysis Method</u>	<u>Analyst</u>
Mercury-low level	Less than	0.10	ppt	5/12/04		EPA 1631	KWH

Sample Description: POINT BEACH OUTFALL 002 - #1
Sample ID: AC40345 Serial/Impact ID: 0
Sample Collector: R.RICK Sample Collection Date: 5/5/04 Collection Time: 10:30
Order Number: 3.0001-01-0021

<u>Parameter</u>	<u>Result</u>	<u>MDL</u>	<u>Units</u>	<u>Analysis Date</u>	<u>Result Flag</u>	<u>Analysis Method</u>	<u>Analyst</u>
Mercury-low level	0.40	0.10	ppt	5/12/04		EPA 1631	KWH

Sample Description: POINT BEACH OUTFALL 002 - #2
Sample ID: AC40346 Serial/Impact ID: 0
Sample Collector: R.RICK Sample Collection Date: 5/5/04 Collection Time: 10:30
Order Number: 3.0001-01-0021

<u>Parameter</u>	<u>Result</u>	<u>MDL</u>	<u>Units</u>	<u>Analysis Date</u>	<u>Result Flag</u>	<u>Analysis Method</u>	<u>Analyst</u>
Mercury-low level	0.39	0.10	ppt	5/12/04		EPA 1631	KWH

Sample Description: POINT BEACH OUTFALL 002 - FIELD BLANK
 Sample ID: AC40347 Serial/Impact ID: 0
 Sample Collector: R.RICK Sample Collection Date: 5/5/04 Collection Time: 10:30
 Order Number: 3.0001-01-0021

<u>Parameter</u>	<u>Result</u>	<u>MDL</u>	<u>Units</u>	<u>Analysis Date</u>	<u>Result Flag</u>	<u>Analysis Method</u>	<u>Analyst</u>
Mercury-low level	Less than	0.10	ppt	5/12/04		EPA 1631	KWH

Sample Description: POINT BEACH INTAKE - #1
 Sample ID: AC40348 Serial/Impact ID: 0
 Sample Collector: R.RICK Sample Collection Date: 5/5/04 Collection Time: 11:00
 Order Number: 3.0001-01-0021

<u>Parameter</u>	<u>Result</u>	<u>MDL</u>	<u>Units</u>	<u>Analysis Date</u>	<u>Result Flag</u>	<u>Analysis Method</u>	<u>Analyst</u>
Mercury-low level	0.38	0.10	ppt	5/12/04		EPA 1631	KWH

Sample Description: POINT BEACH INTAKE - #2
 Sample ID: AC40349 Serial/Impact ID: 0
 Sample Collector: R.RICK Sample Collection Date: 5/5/04 Collection Time: 11:00
 Order Number: 3.0001-01-0021

<u>Parameter</u>	<u>Result</u>	<u>MDL</u>	<u>Units</u>	<u>Analysis Date</u>	<u>Result Flag</u>	<u>Analysis Method</u>	<u>Analyst</u>
Mercury-low level	0.36	0.10	ppt	5/12/04		EPA 1631	KWH

Sample Description: POINT BEACH INTAKE - FIELD BLANK
 Sample ID: AC40350 Serial/Impact ID: 0
 Sample Collector: R.RICK Sample Collection Date: 5/5/04 Collection Time: 11:00
 Order Number: 3.0001-01-0021

<u>Parameter</u>	<u>Result</u>	<u>MDL</u>	<u>Units</u>	<u>Analysis Date</u>	<u>Result Flag</u>	<u>Analysis Method</u>	<u>Analyst</u>
Mercury-low level	Less than	0.10	ppt	5/12/04		EPA 1631	KWH

If there are any questions concerning this report, please contact Kevin Howard @ 221-2833.

Sample Comments:

cc: Rich Sternkopf A231
 Beth Hellman A231

To: Russ Rick
A231

From: Laboratory Services Division
PSB Annex A070
WDNR Cert # 241329000

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Report Date: Wednesday, May 26, 2004

The following are the analytical results for the sample(s) received by Laboratory Services on

5/21/04

Sample Description: PBNP S.P. 105 - SAMPLE 1

Sample ID: AC40963 Serial/Impact ID: 0
Sample Collector: R.RICK Sample Collection Date: 5/21/04 Collection Time: 10:15
Order Number: 3.0001-01-0021

<u>Parameter</u>	<u>Result</u>	<u>MDL</u>	<u>Units</u>	<u>Analysis Date</u>	<u>Result Flag</u>	<u>Analysis Method</u>	<u>Analyst</u>
Mercury-low level	10.5	0.10	ppt	5/26/04		EPA 1631	MJL

Sample Description: PBNP S.P. 105 - SAMPLE 2

Sample ID: AC40964 Serial/Impact ID: 0
Sample Collector: R.RICK Sample Collection Date: 5/21/04 Collection Time: 10:15
Order Number: 3.0001-01-0021

<u>Parameter</u>	<u>Result</u>	<u>MDL</u>	<u>Units</u>	<u>Analysis Date</u>	<u>Result Flag</u>	<u>Analysis Method</u>	<u>Analyst</u>
Mercury-low level	11.4	0.10	ppt	5/26/04		EPA 1631	MJL

Sample Description: PBNP S.P. 105 - FIELD BLANK

Sample ID: AC40965 Serial/Impact ID: 0
Sample Collector: R.RICK Sample Collection Date: 5/21/04 Collection Time: 10:15
Order Number: 3.0001-01-0021

<u>Parameter</u>	<u>Result</u>	<u>MDL</u>	<u>Units</u>	<u>Analysis Date</u>	<u>Result Flag</u>	<u>Analysis Method</u>	<u>Analyst</u>
Mercury-low level	Less than	0.10	ppt	5/26/04		EPA 1631	MJL

Sample Description: PBNP INTAKE - SAMPLE 1

Sample ID: AC40966 Serial/Impact ID: 0
Sample Collector: R.RICK Sample Collection Date: 5/21/04 Collection Time: 10:40
Order Number: 3.0001-01-0021

<u>Parameter</u>	<u>Result</u>	<u>MDL</u>	<u>Units</u>	<u>Analysis Date</u>	<u>Result Flag</u>	<u>Analysis Method</u>	<u>Analyst</u>
Mercury-low level	0.33	0.10	ppt	5/26/04		EPA 1631	MJL

Sample Description: PBNP INTAKE - SAMPLE 2

Sample ID: AC40967 Serial/Impact ID: 0
Sample Collector: R.RICK Sample Collection Date: 5/21/04 Collection Time: 10:40
Order Number: 3.0001-01-0021

<u>Parameter</u>	<u>Result</u>	<u>MDL</u>	<u>Units</u>	<u>Analysis Date</u>	<u>Result Flag</u>	<u>Analysis Method</u>	<u>Analyst</u>
Mercury-low level	0.34	0.10	ppt	5/26/04		EPA 1631	MJL

Sample Description: PBNP INTAKE - FIELD BLANK
 Sample ID: AC40968 Serial/Impact ID: 0
 Sample Collector: R.RICK Sample Collection Date: 5/21/04 Collection Time: 10:40
 Order Number: 3.0001-01-0021

<u>Parameter</u>	<u>Result</u>	<u>MDL</u>	<u>Units</u>	<u>Analysis Date</u>	<u>Result Flag</u>	<u>Analysis Method</u>	<u>Analyst</u>
Mercury-low level	Less than	0.10	ppt	5/26/04		EPA 1631	MJL

Sample Description: PBNP OUTFALL 002 - SAMPLE 1
 Sample ID: AC40969 Serial/Impact ID: 0
 Sample Collector: R.RICK Sample Collection Date: 5/21/04 Collection Time: 11:00
 Order Number: 3.0001-01-0021

<u>Parameter</u>	<u>Result</u>	<u>MDL</u>	<u>Units</u>	<u>Analysis Date</u>	<u>Result Flag</u>	<u>Analysis Method</u>	<u>Analyst</u>
Mercury-low level	0.40	0.10	ppt	5/26/04		EPA 1631	MJL

Sample Description: PBNP OUTFALL 002 - SAMPLE 2
 Sample ID: AC40970 Serial/Impact ID: 0
 Sample Collector: R.RICK Sample Collection Date: 5/21/04 Collection Time: 11:00
 Order Number: 3.0001-01-0021

<u>Parameter</u>	<u>Result</u>	<u>MDL</u>	<u>Units</u>	<u>Analysis Date</u>	<u>Result Flag</u>	<u>Analysis Method</u>	<u>Analyst</u>
Mercury-low level	0.41	0.10	ppt	5/26/04		EPA 1631	MJL

Sample Description: PBNP OUTFALL 002 - FIELD BLANK
 Sample ID: AC40971 Serial/Impact ID: 0
 Sample Collector: R.RICK Sample Collection Date: 5/21/04 Collection Time: 11:00
 Order Number: 3.0001-01-0021

<u>Parameter</u>	<u>Result</u>	<u>MDL</u>	<u>Units</u>	<u>Analysis Date</u>	<u>Result Flag</u>	<u>Analysis Method</u>	<u>Analyst</u>
Mercury-low level	Less than	0.10	ppt	5/26/04		EPA 1631	MJL

If there are any questions concerning this report, please contact Kevin Howard @ 221-2833.

Sample Comments:

CC: R. STERNKOPF - A231, B. HELLMAN - A231