

February 25, 2004

NRC 2004-0016
10 CFR 54

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Mail Stop O-P1-17
Washington, DC 20555-0001

Point Beach Nuclear Plant, Units 1 and 2
Dockets 50-266 and 50-301
License Nos. DPR-24 and DPR-27
Application for Renewed Operating License

Reference: 1) *Letter from Nuclear Management Company, LLC to Document Control Desk, "Information Regarding The Point Beach, Nuclear Plant Operating License Renewal, Point Beach Nuclear Plant, Units 1 and 2," dated December 22, 2003.*

Pursuant to U. S. Nuclear Regulatory Commission (NRC) regulations set forth in 10 CFR Parts 50, 51, and 54, Wisconsin Electric Power Company (WEPCo), owner and Nuclear Management Company, LLC, (NMC) operator, the licensees for Point Beach Nuclear Plant (PBNP), Units 1 and 2 (Facility Operating Licenses DPR-24 and DPR-27, respectively), hereby apply for the renewal of the Facility Operating Licenses for PBNP Units 1 and 2. The current Facility Operating License for PBNP Unit 1 expires at midnight on October 5, 2010. The current Facility Operating License for PBNP Unit 2 expires at midnight on March 8, 2013. By this license renewal application, WEPCo and NMC seek to extend the term of each operating license by 20 years beyond its current expiration date. This application also seeks renewal of the source material, special nuclear material, and by-product material licenses that are subsumed in or combined with each of the Facility Operating Licenses.

The PBNP License Renewal Application is submitted in accordance with the applicable requirements of 10 CFR Part 54, 10 CFR Part 50, and Subpart A of 10 CFR Part 51. This application meets the timeliness requirements of 10 CFR 2.109(b) and 10 CFR 54.17(c) and provides appropriate administrative, technical and environmental information sufficient to support the NRC findings required by 10 CFR 54.29.

The application has been prepared in a format compatible with NUREG-1800, "Standard Review Plan for Review of License Renewal Applications for Nuclear Power Plants," issued July 2001, and in accordance with the "Class of 2003" Standard License Renewal Application Format. NUREG-1801, "Generic Aging Lessons Learned Report," published July 2001, is referenced in the application. In addition, the application was prepared using guidance provided in NEI 95-10, "Industry Guideline for Implementing the Requirements of 10 CFR 54 – The License Renewal Rule," Revision 4 Draft, NUREG-1437, "Generic Environmental Impact Statement for License Renewal of Nuclear Plants" (May 1996), and applicable interim staff guidance documents.

Preparation of this license renewal application involved the detailed review of plant systems, structures, and components, which were then subjected to further evaluation as part of the aging management review. Aging management reviews identified structures and components to be included in the scope of aging management programs. The reviews were able to credit existing activities and programs for managing aging as described in the License Renewal Application. In some cases, new aging management programs were identified or enhancements were needed to existing programs to provide reasonable assurance that the effects of aging will be adequately managed such that the intended functions of systems, structures and components will be maintained consistent with the current licensing basis during the extended period of operation. The commitments listed in Enclosure 1 will be tracked as part of the PBNP commitment management program and will be implemented to ensure schedules are met. The commitments listed in Enclosure 1 summarize those actions and programs committed to by Nuclear Management Company.

During the performance of the environmental review no new and significant information was identified that would either invalidate NRC Category 1 findings in NUREG-1437 or identify any new issues requiring evaluation. A review of the applicable Category 2 issues determined the impacts of PBNP's license renewal to be small.

As required by 10 CFR 54.21(a), actions have been identified that have been or will be taken to demonstrate that the effects of aging will be adequately managed consistent with the current licensing basis for the period of extended operation. Pursuant to 10 CFR 54.21(b), current licensing basis changes that have a material effect on the content of this application will be identified in an annual update to this application. The annual update will be submitted while the application is under NRC review, and at least three months prior to the scheduled completion of the NRC review.

The following enclosures are provided with this letter:

- Enclosure 1 provides a summary list of regulatory commitments made in this application.
- Enclosure 2 provides a paper copy of the PBNP License Renewal Application, including the Environmental Report.

- Enclosure 3 is a compact disc (CD) containing the entire License Renewal Application, including the Applicant's Environmental Report, suitable for posting on the NRC website.
- Enclosure 4 is a CD containing the entire License Renewal Application, including the Environmental Report, and a copy of this signed cover letter, to facilitate entry into the NRC's record retrieval system, ADAMS.

To facilitate NRC review of the application, 80 additional CD copies of the entire License Renewal Application review copy are being provided, including the Environmental Report, and supporting information. These review CDs are formatted in a manner that is consistent with guidance provided in NRC Regulatory Issue Summary (RIS) 2001-05, "Guidance on Submitting Documents to the NRC by Electronic Information Exchange or on CD-ROM." The CDs contain hyperlinks within the application and between the application and the Final Safety Analysis Report and other reference materials, which are included for information only on these review CDs. "Information Only" copies of the license renewal drawings used in the scoping phase of the license renewal project will be submitted under separate cover.

To enhance public access to this application, NMC is providing a paper copy of the License Renewal Application, including the Environmental Report, to the Lester Public Library in Two Rivers, Wisconsin.

In accordance with 10 CFR 50.91, a copy of this application, with enclosures, is being provided to the designated Wisconsin Official.

If you have any questions about this matter, please contact Mr. Roger A. Newton at 920-755-6522

Enclosure 1 summarizes those actions and programs committed to by Nuclear Management Company, LLC in the License Renewal Application. Implementation of these commitments will afford Point Beach Nuclear Plant staff guidance in managing aging effects.

To the best of my knowledge and belief, the statements contained in this document are correct. In some respects, these statements are not based entirely on my personal knowledge, but on information furnished by cognizant NMC employees, contractor employees, and/or consultants. Such information has been reviewed in accordance with company practice, and I believe it to be reliable.

I declare under penalty of perjury that the foregoing is true and accurate. Executed on February 25, 2004.



Gary D. Van Middlesworth
Site Vice-President, Point Beach Nuclear Plant
Nuclear Management Company, LLC

Enclosures:

1. List of Regulatory Commitments
2. Point Beach Nuclear Plant License Renewal Application, including Applicant's Environmental Report
3. CD-ROM, "Point Beach Nuclear Plant License Renewal Application", including Applicant's Environmental Report (NRC website)
4. CD-ROM, "Point Beach Nuclear Plant License Renewal Application", including Applicant's Environmental Report (ADAMS)

cc: (with enclosures 1 and 3; other enclosures as stated)
Regional Administrator, Region III, USNRC (1 copy of Information-Only CD)
Project Manager, Point Beach Nuclear Plant, NRR, USNRC (1 copy of Information-Only CD)
Michael Morgan - License Renewal Project Manager, Point Beach Nuclear Plant, NRR, USNRC (69 copies of Information-Only CD)
William Dam - Environmental Project Manager, Point Beach Nuclear Plant, USNRC (8 copies of Information-Only CD)
NRC Resident Inspector - Point Beach Nuclear Plant (1 copy of Information-Only CD)

Ms. Ave M. Bie, Wisconsin Public Service Commission (enclosures 1 and 2 and 1 copy of Information-Only CD)

M. Sellman (1 copy of Information-Only CD)
Review Contractor (10 copies of Information-Only CD)

Rep. Tom Petri
115 Washington Ave.
Oshkosh, WI 54901

Congressman Mark Green
700 E. Walnut St.
Green Bay, WI 54301
Senator Russ Feingold
1640 Main Street
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Senator Herbert Kohl
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ENCLOSURE 1

APPLICATION FOR RENEWED OPERATING LICENSE POINT BEACH NUCLEAR PLANT

LIST OF REGULATORY COMMITMENTS

The following table summarizes those actions committed to by Nuclear Management Company, LLC in this document. Implementation of these commitments will afford Point Beach Nuclear Plant staff guidance in managing aging effects. Any other actions discussed in this submittal represent intended or planned actions. They are described to the Nuclear Regulatory Commission for information and are not regulatory commitments.

Commitments

	Commitment	FSAR Section	Due Date or Frequency	Source
1	A License Renewal flag for each component will be maintained as part of the equipment information database.	1.4	Prior to the period of extended operation	LRA (License Renewal Application) Section 1.0
2	RI ISI Program inspections of piping welds less than 4-inch NPS will include volumetric examinations for non-socket welds and surface examination for socket welds.	N/A	Continue as part of RI ISI	LRA (License Renewal Application) Section 2.1.1.3.8, 3.1 and Table 3.1.0-1
3	Chemical analyses of the soil, ground water, and lake water will be performed to ensure the below-grade environment remains chemically non-aggressive.	N/A	Prior to the period of extended operation	LRA (License Renewal Application) Section 3.0.1.9
4	All concrete/grout at Point Beach that is within the scope of license renewal, will be managed for aging.	N/A	Prior to the period of extended operation	LRA (License Renewal Application) Section 3.0.1.9

	Commitment	FSAR Section	Due Date or Frequency	Source
5	Point Beach will continue to monitor and participate in industry initiatives with regard to baffle/former and barrel/former bolt performance to support aging management for the Unit 1 bolting.	N/A	Prior to the period of extended operation	LRA (License Renewal Application) Section 3.1.2.2.3.3 and 3.1.2.2.8 and Table 3.1.0-2
6	PBNP will continue to participate in industry investigations of aging effects applicable to reactor vessel internals. Aging management activities or surveillance techniques resulting from these initiatives will be incorporated, as required, as enhancements to the Reactor Vessel Internals Program.	N/A	Prior to the period of extended operation	LRA (License Renewal Application) Section 3.1.2.2.6 and 3.1.2.2.9
7	PBNP will incorporate applicable results of industry initiatives related to void swelling in the Reactor Vessel Internals Program.	N/A	Prior to the period of extended operation	LRA (License Renewal Application) Section 3.1.2.2.6 and Table 3.1.1
8	Plant process control procedures (design control, repair / replacement, and welding) will be revised to ensure that repair or replacement of Class 1 piping components within the scope of LBB analysis (welded connections or CASS) would require a new LBB analysis based on replacement process and / or material properties.	N/A	Prior to the period of extended operation	LRA (License Renewal Application) Table 3.1.0-1

	Commitment	FSAR Section	Due Date or Frequency	Source
9	PBNP will implement the NRC approved industry activities resulting from the MRP, as appropriate, to manage any applicable aging effects identified through the EPRI MRP effort (RVI Related).	N/A	Prior to the period of extended operation	LRA (License Renewal Application) Table 3.1.0-2
10	The Periodic Surveillance and Preventive Maintenance Program will be used to replace the program designated bolting.	N/A	Prior to the period of extended operation	LRA (License Renewal Application) Tables 3.1.2-1 through 3.1.2-6, Tables 3.2.2-1 through 3.2.2-4, Tables 3.3.3-1 through 3.3.3-16, Tables 3.4.2-1 through 3.4.2-3, and Tables 3.5.2-1 through 3.5.2-14
11	The integrity of the RPV will be directly validated with the testing of the capsule installed on Unit 2 in 2002, should extended operation be considered.	N/A	When fluence levels reach those anticipated for the end of the renewed license period	LRA (License Renewal Application) Section 4.1.2
12	Capsule A2 (Unit 1) will be removed at a target EOLE fluence of 3.7×10^{19} n/cm ² .	N/A	Removal at Fluence described	LRA Section 4.2
13	The upper shelf energy evaluation will be revised prior to entering into the extended period of operation.	N/A	Prior to the period of extended operation	LRA Section 4.2

	Commitment	FSAR Section	Due Date or Frequency	Source
14	Implement an enhanced ASME Section XI, Subsections IWB, IWC, and IWD Inservice Inspection Program.	15.2.1 ASME Section XI, Subsections IWB, IWC, and IWD Inservice Inspection Program	Prior to the period of extended operation	LRA Appendix A and Appendix B2.1.1
15	Implement an enhanced ASME Section XI, Subsections IWE & IWL Inservice Inspection Program.	15.2.2 ASME Section XI, Subsections IWE & IWL Inservice Inspection Program	Prior to the period of extended operation	LRA Appendix A and Appendix B2.1.2
16	Implement an enhanced ASME Section XI, Subsections IWF Inservice Inspection Program.	15.2.3 Subsections IWF Inservice Inspection Program	Prior to the period of extended operation	LRA Appendix A, and Appendix B2.1.3
17	Implement an enhanced Bolting Integrity Program.	15.2.4 Bolting Integrity Program	Prior to the period of extended operation	LRA Appendix A and Appendix B2.1.4
18	Implement an enhanced Boraflex Monitoring Program.	15.2.5 Boraflex Monitoring Program	Prior to the period of extended operation	LRA Appendix A and Appendix B2.1.5
19	Implement an enhanced Boric Acid Corrosion Program.	15.2.6 Boric Acid Corrosion Program	Prior to the period of extended operation	LRA Appendix A and Appendix B2.1.6
20	Develop and implement a Buried Services Monitoring Program.	15.2.7 Buried Services Monitoring Program	Prior to the period of extended operation	LRA Appendix A and Appendix B2.1.7
21	Develop and implement a Cable Condition Monitoring Program.	15.2.8 Cable Condition Monitoring Program	Prior to the period of extended operation	LRA Appendix A and Appendix B2.1.8

	Commitment	FSAR Section	Due Date or Frequency	Source
22	Implement an enhanced Closed-Cycle Cooling Water System Surveillance Program.	15.2.9 Closed-Cycle Cooling Water System Surveillance Program	Prior to the period of extended operation	LRA Appendix A and Appendix B2.1.9
23	Implement an enhanced Fire Protection Program.	15.2.10 Fire Protection Program	Prior to the period of extended operation In the case of the sprinkler heads, they will be inspected prior to exceeding their 50-year service life.	LRA Appendix A and Appendix B2.1.10
24	Implement an enhanced Flow Accelerated Corrosion Program.	15.2.11 Flow Accelerated Corrosion Program	Prior to the period of extended operation	LRA Appendix A and Appendix B2.1.11
25	Implement an enhanced Fuel Oil Chemistry Control Program.	15.2.12 Fuel Oil Chemistry Control Program	Prior to the period of extended operation	LRA Appendix A and Appendix B2.1.12
26	Develop and implement a One Time Inspection Program.	15.2.13 One Time Inspection Program	Prior to the period of extended operation	LRA Appendix A and Appendix B2.1.13
27	Implement an enhanced Open-Cycle Cooling (Service) Water System Surveillance Program.	15.2.14 Open-cycle Cooling (Service) Water System Surveillance Program	Prior to the period of extended operation	LRA Appendix A and Appendix B2.1.14

	Commitment	FSAR Section	Due Date or Frequency	Source
28	Implement an enhanced Periodic Surveillance and Preventive Maintenance Program.	15.2.15 Periodic Surveillance and Preventive Maintenance Program	Prior to the period of extended operation	LRA Appendix A and Appendix B2.1.15
29	Develop and implement a Reactor Coolant System Alloy 600 Inspection Program.	15.2.16 Reactor Coolant System Alloy 600 Inspection Program	Completion will be consistent with the commitments made in the response to NRC Bulletin 2002-02 and the requirements of NRC Order EA-03-009.	LRA Appendix A and Appendix B2.1.16
30	Implement an enhanced Reactor Vessel Internals Program	15.2.17 Reactor Vessel Internals Program	Prior to the period of extended operation	LRA Appendix A and Appendix B2.1.17
31	Implement an enhanced Reactor Vessel Surveillance Program.	15.2.18 Reactor Vessel Surveillance Program	Implement prior to the need to assess condition of surveillance capsule	LRA Appendix A and Appendix B2.1.18
32	Implement an enhanced Steam Generator Integrity Program.	15.2.19 Steam Generator Integrity Program	Prior to the period of extended operation	LRA Appendix A and Appendix B2.1.19
33	Implement an enhanced Structures Monitoring Program.	15.2.20 Structures Monitoring Program	Prior to the period of extended operation	LRA Table 3.5.0-1 Line 8, and Appendix B2.1.20
34	Implement an enhanced Systems Monitoring Program.	15.2.21 Systems Monitoring Program	Prior to the period of extended operation	LRA Appendix A and Appendix B2.1.21
35	Develop and implement a Tank Internal Inspection Program.	15.2.22 Tank Internal Inspection Program	Prior to the period of extended operation	LRA Appendix A and Appendix B2.1.22

	Commitment	FSAR Section	Due Date or Frequency	Source
36	Implement an enhanced Thimble Tube Inspection Program.	15.2.23 Thimble Tube Inspection Program	Prior to the period of extended operation	LRA Appendix A and Appendix B2.1.23
37	Implement an enhanced Water Chemistry Control Program	15.2.24 Water Chemistry Control Program	Prior to the period of extended operation	LRA Appendix A and Appendix B2.1.24
38	Implement an enhanced EQ Program.	15.3.2 EQ Program	Prior to the period of extended operation	LRA Appendix A and Appendix B3.1
39	Implement an enhanced Fatigue Monitoring Program.	15.3.3 Fatigue Monitoring Program	Prior to the period of extended operation	LRA Appendix A, Table 3.1.0-2 Line 11 and Appendix B3.2
40	Implement an enhanced Pre-Stressed Concrete Containment Tendon Surveillance Program.	15.3.1 Pre-Stressed Concrete Containment Tendon Surveillance Program	Prior to the period of extended operation	LRA Appendix A and Appendix B3.3

ENCLOSURE 2

**POINT BEACH NUCLEAR PLANT LICENSE RENEWAL APPLICATION,
INCLUDING THE APPLICANT'S ENVIRONMENTAL REPORT**

ENCLOSURE 3

**APPLICATION FOR RENEWED OPERATING LICENSE
POINT BEACH NUCLEAR PLANT**

**CD-ROM, "Point Beach Nuclear Plant License Renewal Application"
(NRC website)**

ENCLOSURE 4

**APPLICATION FOR RENEWED OPERATING LICENSE
POINT BEACH NUCLEAR PLANT**

**CD-ROM, "Point Beach Nuclear Plant License Renewal Application"
(ADAMS)**