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10 CFR 50.4

10 CFR 50.90

May 29, 1996

Document Control Desk
US NUCLEAR REGULATORY COMMISSION
Mail Station P1-137
Washington, DC 20555

Gentlemen:

DOCKETS 50-266 AND 50-301
TECHNICAL SPECIFICATIONS CHANGE REQUEST 187
ADOPTION OF 10 CFR 50, APPENDIX J, OPTION B
POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

In accordance with the requirements of 10 CFR 50.4 and 50.90, Wisconsin Electric Power Company (Licensee) hereby requests amendments to Facility Operating Licenses DPR-24 and DPR-27 for Point Beach Nuclear Plant (PBNP) Units 1 and 2, respectively, to incorporate changes to the plant Technical Specifications. The proposed revisions will modify Technical Specification (TS) Section 15.4.4, "Containment Tests," to incorporate the provisions of 10 CFR 50, Appendix J, "Primary Reactor Containment Leakage Testing for Water-Cooled Power Reactors," Option B. Revisions are also proposed to TS Sections 15.1, "Definitions," 15.3.6, "Containment System," and 15.6, "Administrative Controls," to support the changes to Section 15.4.4.

Marked-up Technical Specifications pages, a safety evaluation, and the no significant hazards consideration are enclosed.

DESCRIPTION OF CURRENT LICENSE CONDITION

Containment leakage rate testing is currently performed in accordance with 10 CFR 50, Appendix J, "Primary Reactor Containment Leakage Testing for Water-Cooled Power Reactors." Appendix J specifies containment leakage testing requirements, including the types of tests required, frequency of testing, and reporting requirements. Containment leakage test requirements include performance of Integrated Leakage Rate (Type A) Tests, which measure overall leakage rate of the containment and Local Leakage Rate (Type B and C) Tests, which measure the leakage through containment penetrations and valves.

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TS Section 15.4.4 specifies the requirements for Type A, B, and C containment leakage testing at PBNP, including descriptions of the tests, acceptance criteria, frequency requirements, and reporting requirements. Section 15.4.4 also describes the requirements for containment structural integrity surveillances for the tendons, end anchorage concrete, and liner plate.

TS Section 15.1 gives the definition of containment integrity, including a provision that overall uncontrolled containment leakage must be less than L_a except prior to the first startup following testing required by TS 15.4.4. In this case, the as-left leakage rates shall satisfy the acceptance criteria in TS 15.4.4.

TS Section 15.3.6 specifies the Limiting Conditions for Operability and action statements for containment systems.

TS Section 15.6 describes various administrative items such as responsibilities, operating procedures, and reporting requirements. Specification 15.6.9.2.A describes the reporting requirements for Integrated Leak Rate Tests.

DESCRIPTION OF PROPOSED CHANGES

The portions TS Section 15.4.4 that describe containment leakage rate testing will be replaced with the following:

- "I. Perform required visual examinations and leakage rate testing in accordance with the Containment Leakage Rate Testing Program."

The information that was deleted will be included in the Containment Leakage Rate Testing Program.

TS Sections 15.4.4.VII, VIII, and IX will be renumbered to 15.4.4.II, III, and IV respectively.

Descriptions of containment leakage testing in the Basis for TS Section 15.4.4 will be replaced with a reference to the Containment Leakage Rate Testing Program. The information that was deleted will be included in the Containment Leakage Rate Testing Program. Also, a typographical error in the fifth paragraph of the Basis will be corrected.

The footnote to TS 15.1.D(4) will be modified to read as follows:

- "**Prior to the first startup after performing a required Containment Leakage Rate Testing Program leakage test, the applicable leakage limits specified in TS 15.6.12.D.2 must be met."

Several editorial changes will be made to TS Section 15.3.6 to refer to the Containment Leakage Rate Testing Program or the renumbered sections in TS 15.4.4 as appropriate.

The Bases for TS Section 15.3.6 will be revised to state that the containment must withstand the pressures and temperatures of the "design basis LOCA" rather than the "limiting DBA." The Bases will also be revised to support the revised wording of the footnote to TS 15.1.D(4).

TS 15.6.9.2.A will be marked "Deleted" since the reporting requirements for containment leak rate testing will be contained in the Containment Leakage Rate Testing Program.

New TS 15.6.12 will be added to describe the Containment Leakage Rate Testing Program. This specification will include a one-time exception to Regulatory Guide 1.163 in that the next Type A test on PBNP Unit 2 will be performed at an interval of 60 (rather than 48) months since the last Unit 2 test.

New Specification 15.6.12.B discusses accident pressure, P_a . The design pressure for both containments at PBNP is 60 psig. Peak calculated accident pressure for the design basis LOCA is 53 psig. However, all Type A tests at PBNP have been predicated on the design peak accident pressure, P_a , of 60 psig. As such, reduced pressure tests have been conducted at 30 psig. The allowable leakage rate, L_a , is based on the design peak pressure of 60 psig. As a conservative measure, we desire to conduct future Type A tests at 60 psig. The wording of proposed Specification 15.6.12.B, therefore, reflects that design peak accident pressure, P_a , for PBNP is 60 psig.

BASIS AND JUSTIFICATION

The NRC has amended its regulations (60FR49495) to provide an alternative option, Option B, for containment leakage rate testing. Option B allows licensees to implement performance-based testing, possibly reducing the Type A testing frequency from three tests in ten years to one test in 10 years. For Type B and C tests, Option B allows licensees to reduce testing frequency on a plant-specific basis based on the leakage performance history of each component, and established controls to ensure continued performance during the extended testing interval.

The purpose of this TSCR is to adopt Option B for Type A, B, and C testing at PBNP. Guidance for complying with Option B is contained in NRC Regulatory Guide 1.163, "Performance-Based Containment Leak-Test Program," and NEI 94-01, "Nuclear Energy Institute - Industry Guideline for Implementing Performance-Based Option of 10CFR Part 50, Appendix J." NEI 94-01 is predicated on performing containment leakage testing in accordance with ANSI/ANS 56.8-1994, "Containment System Leakage Testing Requirements." Our proposed method for complying with

Option B is in accordance with the guidance provided in Regulatory Guide 1.163 and NEI 94-01, with the exception that the next Type A test on Unit 2 will be performed 60 months after the last test instead of 48 months.

EXCEPTIONS TO REGULATORY GUIDE 1.163

NRC Regulatory Guide 1.163 endorses NEI 94-01. NEI 94-01 states that periodic Type A tests shall be performed at intervals of 48 months until acceptable performance is established to extend the test intervals. Acceptable performance history is defined as completion of two consecutive periodic Type A tests where the calculated performance leakage rate was less than 1.0 L_a. At least one of these tests must be performed at peak accident pressure.

The periodic Type A tests at PBNP are conducted at reduced pressure in accordance with existing Technical Specification requirements. In order to adopt the extended test interval provisions of Option B for Type A tests, we must perform a full pressure test. Under the provisions of Appendix J, Option A, the next Type A test for PBNP Unit 2 must be performed during the Fall 1996 refueling outage. However, we are planning to replace the Unit 2 steam generators during this outage. In order to reduce the Fall, 1996 outage scope and duration and focus our resources on the safe replacement of the steam generators, we desire to perform the Unit 2 Type A test during the Fall, 1997 outage. Deferral of the Type A test by one cycle will allow time to adequately prepare for a full pressure test without compromising either nuclear or personnel safety.

EXEMPTIONS TO 10CFR50, APPENDIX J, OPTION A

Option B recognizes that, in many cases, the Technical Specifications were approved that incorporated exemptions to the provisions of Appendix J. Additionally, some licensees have requested and received exemption after their Technical Specifications were issued. Option B states that specific exemptions to Option A of Appendix J that have been formally approved by the Atomic Energy Commission or NRC, according to 10CFR50.12, are still applicable to Option B if necessary, unless specifically revoked by the NRC.

The current PBNP Technical Specifications contain three exemptions to Appendix J, Option A. Each of these exemptions was an initial license condition which existed prior to the issuance of Appendix J. In a Safety Evaluation Report for License Amendments 61/66, dated June 25, 1982, the NRC accepted these provisions as exemptions to Appendix J.

- a. Exemption from Section III.A.1.(d) with respect to the service air supply line used in conjunction with the Type A test. Since this line is used to pressurize and depressurize the containment during the Type A test, its leakage integrity is not factored into the test results. The exemption allowed this penetration to be Type C tested with the measured leakage added to the Type A test results. This exemption is no longer necessary since Option B does not contain specific leakage test requirements for Type A tests. Guidance for testing systems required for proper conduct of the Type A test is contained in NEI 94-01 and ANSI/ANS 56.8-1994.
- b. Exemption from Section III.A.1.(d) with respect to leakage testing of the Residual Heat Removal (RHR) system. Under this exemption, portions of the RHR system outside the containment are tested either by use in normal operation or hydrostatically tested during shutdowns for major refueling in lieu of pneumatic (Type C) testing. This exemption is no longer necessary since Option B does not contain specific leakage test requirements for Type C tests. Guidance regarding leakage testing of systems normally filled with fluid and operable under post-accident conditions is contained in NEI 94-01 and ANSI/ANS 56.8-1994.
- c. Exemption from Section III.A.1.(a) with respect to termination of a Type A test if excessive leakage paths are identified. Section III.A.1.(a) requires termination of the Type A test when excessive leakage paths are identified, performance of local leakage tests of these paths, and performance of another Type A test after repairs are made. Our TS stated that leak repairs, if required during a Type A test, must be preceded and followed by local leakage rate (Type B or C) tests, but did not require reperformance of the Type A test. The NRC accepted our TS as an exemption to Appendix J since industry experience in conducting Type A tests showed that the objective of this portion of Appendix J could be achieved without necessarily requiring a second complete Type A test. This exemption is no longer necessary since Option B does not contain specific leakage test requirements for Type A tests. Guidance regarding the conduct of Type A tests is contained in NEI 94-01 and ANSI/ANS 56.8-1994.

IMPLEMENTATION PLAN

Implementation of the extended interval provisions of Option B for Type A tests will occur after successful completion of the full pressure Type A test on each unit. The full pressure Type A test for Unit 1 is scheduled for the Spring, 1997 refueling outage. As discussed above, the full pressure Type A test for Unit 2 is scheduled for the Fall, 1997 refueling outage.

Implementation of the extended interval provisions of Option B for Type B and C tests will occur after this TSCR is approved based on the leakage performance history of each component.

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We are currently developing a Containment Leakage Rate Testing Program to specify the details for Type A, B, and C testing and visual examinations. The program will be developed in accordance with the guidance of Regulatory Guide 1.163 and NEI 94-01 with the schedular exception discussed previously. This performance-based program will be approved by PBNP management prior to implementing the requested license amendment and will be available on-site for NRC inspection.

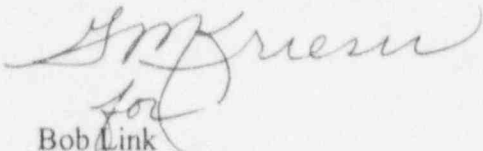
ENVIRONMENTAL ASSESSMENT

We have determined that the proposed amendments do not involve a significant hazards consideration, authorize a significant change in the types or total amounts of any effluent release, or result in any significant increase in individual or cumulative occupational exposure. Therefore, we conclude that the proposed amendments meet the requirements of 10 CFR 51.22(c)(9) and that an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared.

We request that this Technical Specifications Change Request be issued by July 1, 1996, and become effective within 60 days of issuance in order to eliminate committed costs and pre-outage expenses associated with performance of the reduced pressure Type A test during the Unit 2, Fall 1996 outage.

If you require additional information, please contact us.

Sincerely,



Bob Link
Vice President
Nuclear Power

cc: NRC Resident Inspector
NRC Regional Administrator
PSCW

TECHNICAL SPECIFICATIONS CHANGE REQUEST 187

SAFETY EVALUATION

INTRODUCTION

Wisconsin Electric Power Company (Licensee) has applied for amendments to Facility Operating Licenses DPR-24 and DPR-27 for Point Beach Nuclear Plant Units 1 and 2. The proposed revisions will modify Technical Specification (TS) Section 15.4.4, "Containment Tests," to incorporate the provisions of 10 CFR 50, Appendix J, "Primary Reactor Containment Leakage Testing for Water-Cooled Power Reactors," Option B. Revisions are also proposed to TS Sections 15.1, "Definitions," 15.3.6, "Containment System," and 15.6, "Administrative Controls," to support the changes to Section 15.4.4.

EVALUATION

The proposed change potentially affects the leak-tight integrity of the containment structure designed to mitigate the consequences of a loss-of-coolant accident (LOCA). The function of the containment is to maintain structural integrity during and following the peak transient pressures and temperatures which result from a LOCA. The containment is designed to limit fission product leakage following the design basis LOCA. Because the proposed change does not alter the plant design, only the frequency of measuring Type A, B, and C leakage, the proposed change does not directly result in an increase in containment leakage. However, decreasing the test frequency can increase the probability that an increase in containment leakage could go undetected for an extended period of time. Test intervals will be established based on the performance history of components being tested. As documented in NUREG-1493, "Performance-Based Containment Leakage Test Program," the risk resulting from the proposed change is imperceptible.

The proposed change includes a one-time exception to Regulatory Guide 1.163 in that the next Type A test for Unit 2 will be performed at an interval of 60 (rather than 48) months since the last Type A test. NRC Regulatory Guide 1.163 endorses NEI 94-01. NEI 94-01 states that periodic Type A tests shall be performed at intervals of 48 months until acceptable performance is established to extend the test intervals. Acceptable performance history is defined as completion of two consecutive periodic Type A tests where the calculated performance leakage rate was less than $1.0 L_a$. At least one of these tests must be performed at peak accident pressure.

The periodic Type A tests at PBNP are conducted at reduced pressure. In order to adopt the extended test interval provisions of Option B for Type A tests, we must perform a full pressure test. Under the provisions of Appendix J, Option A, the next Type A test for PBNP Unit 2 is must be performed during the Fall, 1996 refueling outage. However, we are planning to replace the Unit 2 steam generators during this outage. More equipment must be obtained and implementing procedures must be changed to account for performing a full pressure test instead of a reduced pressure test. The personnel that would perform this work are currently working on

efforts related to steam generator replacement. It is more prudent to focus our resources on the safe replacement of the Unit 2 steam generators. Deferral of the Type A test will reduce the Fall, 1996 outage scope and duration and will allow time to adequately prepare for a full pressure test.

The PBNP containments have an excellent Type A test performance history that provides substantial justification for the proposed exception to Regulatory Guide 1.163. The Unit 2 containment has never failed a Type A test. The five Type A tests conducted since plant start-up have all been less than 63% of the allowable test leakage rate at the 95% upper confidence level.

Based on a review of activities, we have concluded that there have not been any alterations or challenges to the Unit 2 primary containment since the last Type A test. We will not be making any major modifications to the containment structure itself during the Fall, 1996 refueling outage. Transportation of the existing and replacement steam generators out of and into containment will be done via the existing equipment hatch. No cutting of the containment structure or liner plate is required. Welding of the main steam and feedwater lines after installation of the replacement steam generators will be followed by appropriate inspections and testing in accordance with approved codes and standards to ensure the integrity of these containment penetrations is maintained. No other work that could affect the containment structure is scheduled for the Fall, 1996 outage.

Extensions of the interval between consecutive Type A tests well beyond the interval we are proposing have previously been approved by the NRC for other licensees. Furthermore, Option B allows an interval of 10 years between consecutive Type A tests if previous test performance is adequate. As mentioned above, NUREG 1493 concludes that a reduction in the frequency of Type A tests from the current three per 10 years to one per 10 years leads to an imperceptible increase in risk. The increase is very small because Type A tests identify only a few potential containment leakage paths that cannot be identified by Type B and C testing, and the leaks that have been found by Type A tests have been only marginally above existing requirements.

Based on the above, approval of this Technical Specification Change Request will not present undue risk to the health and safety of the public.

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NO SIGNIFICANT HAZARDS CONSIDERATION

In accordance with the requirements of 10 CFR 50.91(a), Wisconsin Electric Power Company (Licensee) has evaluated the proposed changes against the standards of 10 CFR 50.92 and has determined that the operation of Point Beach Nuclear Plant, Units 1 and 2, in accordance with the proposed amendments does not present a significant hazards consideration. The analysis of the requirements of 10 CFR 50.92 and the basis for this conclusion are as follows:

1. Operation of this facility under the proposed Technical Specifications will not create a significant increase in the probability or consequences of an accident previously evaluated.

The proposed change does not involve a change to structures, systems, or components which would affect the probability or consequences of an accident previously evaluated in the PBNP Final Safety Analyses Report (FSAR). Furthermore, containment leakage rate testing is not an initiator of any accident. The proposed change simply provides a mechanism within the Technical Specifications for implementing a performance-based method of determining the frequency for leakage rate testing which has been approved by the NRC. The proposed change does not affect reactor operations or accident analysis and has no significant radiological consequences. Therefore, this change will not create a significant increase in the probability or consequences of an accident previously evaluated.

2. Operation of this facility under the proposed Technical Specifications change will not create the possibility of a new or different kind of accident from any accident previously evaluated.

The proposed change does not involve a change to the plant design or operation. As a result, the proposed change does not affect any of the parameters or conditions that contribute to initiation of any accidents. This change involves a potential reduction of Type A, B, and C test frequency. Except for the method of defining the test frequency, the methods for performing the actual tests are not changed. No new accident modes are created by extending the testing intervals. No safety-related equipment or safety functions are altered as a result of this change. Extending the test frequency has no influence on, nor does it contribute to, the possibility of a new or different kind of accident or malfunction from those previously analyzed. Therefore, the proposed change will not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Operation of this facility under the proposed Technical Specifications change will not create a significant reduction in a margin of safety.

The proposed change potentially affects only the frequency of Type A, B, and C testing. Except for the method of defining the test frequency, the methods for performing the actual tests are not changed. The proposed change is based on NRC accepted provisions and maintains necessary levels of system and component reliability affecting containment integrity. Evaluation of the performance-based approach to leakage rate testing, as documented in NUREG-1493, concludes that the impact on public health and safety due to revised testing intervals is negligible. Furthermore, the proposed change will not reduce the availability of systems associated with containment integrity when they are required to mitigate accident conditions. Therefore, the proposed change will not create a significant reduction in a margin of safety.