



MARK E. REDDEMANN
Site Vice President
Point Beach Nuclear Plant
6610 Nuclear Rd.
Two Rivers, WI 54241
Phone 920 755-6527

NPL 99-0654

10 CFR 50.90

November 15, 1999

Document Control Desk
U. S. NUCLEAR REGULATORY COMMISSION
Mail Stop P1-137
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Ladies/Gentlemen:

DOCKETS 50-266 AND 50-301
TECHNICAL SPECIFICATION CHANGE REQUEST 202
AMENDMENT TO FACILITY OPERATING LICENSES TO CHANGE THE
CONTROL ROD MOVEMENT EXERCISE PERIODICITY TO QUARTERLY
POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

In accordance with the requirements of 10 CFR 50.4 and 10 CFR 50.90, Wisconsin Electric Power Company (WE), licensee for the Point Beach Nuclear Plant (PBNP), proposes to amend Facility Operating Licenses DPR-24 and DPR-27 for PBNP Units 1 and 2, respectively. The proposed amendments will change the required frequency of the control rod exercise test from the current frequency of every two (2) weeks to a proposed frequency of quarterly in the plant Technical Specifications.

Included in Attachment 1 to this letter is a description of the proposed Technical Specification change, supporting information, a safety analysis, and a no significant hazards determination. Included in Attachment 2 is a copy of the Technical Specification page with the change incorporated.

WE has determined that the proposed change meets the categorical exclusion criteria of 10 CFR 51.22(c)(9) in that it: (1) Involves no significant hazards consideration; (2) Does not result in a significant change in the types or significant increase in the amounts of any effluents released off-site; and (3) Does not result in a significant increase in individual or cumulative radiation exposure. Therefore, in accordance with 10 CFR 51.22(b), an environmental assessment or impact statement need not be prepared.

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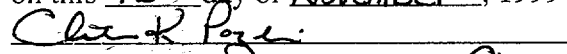
WE requests approval of the proposed amendments within 6 months (prior to May 30, 2000).
Should you have any questions on this submittal or require additional information, please contact us.

Sincerely,



Mark E. Reddemann
Site Vice President
Point Beach Nuclear Plant

Subscribed to and sworn before me
on this 15th day of November, 1999



Notary Public, State of Wisconsin Christine K. Pozorski

My Commission expires on 8/25/2002.

MAW/tat

Attachments

cc: NRC Regional Administrator
NRC Resident Inspector
NRC Project Manager
PSCW

Introduction

Item 10 of Table 15.4.1-2, “Minimum Frequencies for Equipment and Sampling Tests,” of the PBNP Technical Specifications (TS) requires the performance of a control rod exercise test (partial movement of all rods) when the reactor is critical. The specified frequency of this test is “every 2 weeks,” which was the frequency included in the original PBNP TS. WE proposes to relax this frequency interval to quarterly. The quarterly interval is consistent with the interval contained in NUREG 1431, “Standard Technical Specifications for Westinghouse Pressurized Water Reactors.”

The NRC Staff completed a comprehensive examination of surveillance requirements in Technical Specifications that require testing during power operation. The results of this work were documented in NUREG 1366, “Improvements to Technical Specification Surveillance Requirements.” NRC Generic Letter 93-05, “Line-Item Technical Specification Improvements to Reduce Surveillance Requirements for Testing During Power Operation,” was subsequently issued to provide guidance to licensees who plan to adopt applicable recommendations. The relaxation of this testing interval is one of the recommendations (recommendation 4.2.1) contained in NRC Generic Letter 93-05.

The proposed reduction in surveillance testing during power operation will improve safety, reduce equipment degradation, and ease the burden on personnel resources by reducing the frequency of the control rod exercise test per the guidance contained in GL 93-05.

A detailed description of the above proposed change and the basis for this change follows. Deletions from the presently approved Technical Specifications are indicated by revision bars and lineout. Additions to the presently approved Technical Specifications are indicated by revision bars and are underlined.

Description of Proposed Changes and Supporting Information:

It is proposed that TS Table 15.4.1-2, Item 10, be revised as follows:

TS Table 15.4.1-2:

<u>Item</u>	<u>Test</u>	<u>Frequency</u>
10. Control Rod	Partial Movement of all rods	<u>Quarterly</u> Every 2 weeks ⁽¹⁸⁾

Basis for Change

The proposed frequency change is consistent with NUREG 1431 and GL 93-05. This change does not affect the operability of the system, only the specified surveillance frequency. Industry experience has shown that performance of this test can result in reactor trips, dropped rods, and unnecessary challenges to safety systems. The proposed change to the surveillance interval will

reduce the likelihood of these occurrences. Industry experience (as documented in NUREG 1366) has also shown that the quarterly frequency is sufficient to detect control rod failures which could impact control rod trippability.

The proposed frequency takes into consideration other control rod information available to the operator in the control room that adds to the determination of operability of the rods. This information includes routine control rod position monitoring by the operator during power operations. A review of the PBNP condition reporting (CR) database revealed a very small number of CR's written for control rod exercise test failures. Therefore, the increased testing interval is further supported by the low testing failure rate identified during past performances of the control rod exercise tests at PBNP.

Safety Evaluation of Proposed Change

The control rods provide reactivity control for: (1) Fast shutdown; (2) Reactivity changes associated with changes in the average coolant temperature above hot zero power (core average coolant temperature is increased with power level); (3) Reactivity changes associated with any void formation; and, (4) Reactivity changes associated with the power coefficient of reactivity. The rods are divided into two categories according to their function. The rods which compensate for changes in reactivity due to variations in operating conditions of the reactor, such as power or temperature, comprise the control group of rods. The other rods provide additional shutdown reactivity and are termed shutdown rods.

Verifying that each control rod is operable would require that each rod be tripped. However, with the reactor critical (with $k_{eff} \geq 1.0$), tripping each control rod would result in radial or axial power tilts, or oscillations. Exercising each individual control rod provides increased confidence that all rods continue to be operable without exceeding the alignment limit, even if they are not regularly tripped.

The proposed change is to the surveillance frequency only, and does not involve a change to the TS surveillance requirement itself or the way in which the surveillance is performed. The proposed frequency change is consistent with the frequency specified in NUREG 1431 and GL 93-05. Industry experience (as documented in NUREG 1366) has shown that the quarterly frequency is sufficient to detect control rod failures which could impact control rod trippability. The proposed frequency takes into consideration other control rod information available to the operator in the control room that adds to the determination of operability of the rods. The increased interval is further supported by the extremely low testing failure rate identified during past performances of the control rod exercise tests at PBNP.

Based on the above, WE has concluded that increasing the control rod exercise testing interval from 2 weeks to quarterly has no adverse effect on nuclear safety.

No Significant Hazards Determination of Proposed Change

In accordance with the requirements of 10 CFR 50.4 and 10 CFR 50.90, Wisconsin Electric Power Company (WE), licensee for the Point Beach Nuclear Plant (PBNP), proposes to amend Facility Operating Licenses DPR-24 and DPR-27 for PBNP Units 1 and 2, respectively. The proposed amendment will change the required frequency of the control rod exercise test from the current frequency of every two (2) weeks to a proposed frequency of quarterly in the plant Technical Specifications.

Item 10 of Table 15.4.1-2, “Minimum Frequencies for Equipment and Sampling Tests,” of the PBNP Technical Specifications (TS) requires the performance of a control rod exercise test (partial movement of all rods) when the reactor is critical. The specified frequency of this test is “every 2 weeks,” which was the frequency included in the original PBNP TS. WE proposes to relax this frequency interval to quarterly. The quarterly interval is consistent with the interval contained in NUREG 1431, “Standard Technical Specifications for Westinghouse Pressurized Water Reactors,” and NRC Generic Letter 93-05, “Line-Item Technical Specification Improvements to Reduce Surveillance Requirements for Testing During Power Operation.”

WE has evaluated the proposed amendment in accordance with 10 CFR 50.91(a)(1), against the standards in 10 CFR 50.92, and has determined that operation of the PBNP in accordance with the proposed amendments involves no significant hazards consideration. The evaluation against each of the standards in 10 CFR 50.92 and basis for this conclusion follows:

1. Operation of the Point Beach Nuclear Plant in accordance with the proposed amendments will not result in a significant increase in the probability or consequences of an accident previously evaluated.

Relaxing the frequency of performance for a surveillance does not result in any hardware changes, nor does it significantly increase the probability of occurrence for initiation of any analyzed events since the function of the equipment has remained unchanged. The proposed frequency has been determined to be adequate based on industry operating data as supported by the conclusions reached in NUREG 1366 and NRC GL 93-05.

Surveillance tests are intended to provide assurance of continued component operability. The frequency of performance of a surveillance does not significantly increase the consequences of an accident, as a change in frequency does not change the response of the equipment in performing its specified function (i.e. the overall functional capabilities of the rod control system will not be modified). Increasing the interval of control rod exercise testing will reduce the possibility of inadvertent testing related reactor trips and dropped rods, and result in fewer challenges to safety systems and resultant plant transients.

This change does not involve a significant increase in the consequences of an accident or event previously evaluated because the source term, containment isolation or radiological releases are not being changed by the proposed revision. Existing system and component redundancy and

operation is not being changed by the proposed change. The assumptions used in evaluating the radiological consequences in the PBNP Final Safety Analysis Report are not invalidated. Therefore, this change does not affect the consequences of previously evaluated accidents.

2. Operation of the Point Beach Nuclear Plant in accordance with the proposed amendments will not create the possibility of a new or different kind of accident from any accident previously evaluated.

This change does not introduce nor increase the number of failure mechanisms of a new or different type of accident than those previously evaluated since there are no physical changes being made to the facility. The design and design basis of the facility remain unchanged. The plant safety analyses remain unchanged. All equipment important to safety will continue to operate as designed. Component integrity is not challenged. The changes do not result in any event previously deemed incredible being made credible. The changes do not result in more adverse conditions nor result in any increase in challenges to safety systems. Therefore, operation of the Point Beach Nuclear Plant in accordance with the proposed amendment will not create the possibility of a new or different type of accident from any accident previously evaluated.

3. Operation of the Point Beach Nuclear Plant in accordance with the proposed amendments does not involve a significant reduction in a margin of safety.

The proposed change does not involve a significant reduction in the margin of safety because existing component redundancy is not being changed by this proposed change. There are no changes to the initial conditions contributing to accident severity or consequences. The proposed surveillance frequency, as supported by past test results, continues to provide the required assurance of operability, such that safety margins established through the design and facility license, including the Technical Specifications, remain unchanged. Therefore, there are no significant reductions in a margin of safety introduced by this proposed amendment.

Conclusion

Operation of the Point Beach Nuclear Plant in accordance with the proposed amendment will not result in a significant increase in the probability or consequences of any accident previously analyzed; will not result in a new or different kind of accident from any accident previously analyzed; and, does not result in a reduction in any margin of safety. Therefore, operation of the PBNP in accordance with the proposed amendments does not result in a significant hazards determination.

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Attachment 2 – TSCR 202

This attachment contains the Technical Specification page (Table 15.4.1-2 page 2 of 5) with the proposed change requested by this TSCR incorporated. This attachment contains two (2) pages (including this page).

TABLE 15.4.1-2 (Continued)

	<u>Test</u>	<u>Frequency</u>
7.	Spent Fuel Pit	
	a) Boron Concentration	Monthly
	b) Water Level Verification	Weekly
8.	Secondary Coolant	
	Gross Beta-gamma Activity or gamma isotopic analysis	Weekly ⁽⁶⁾
	Iodine concentration	Weekly when gross Beta-gamma activity equals or exceeds 1.0 $\mu\text{Ci/g}$ ⁽⁶⁾
9.	Control Rods	
	a) Rod drop times of all full length rods ⁽³⁾	Each refueling or after maintenance that could affect proper functioning ⁽⁴⁾
	b) Rodworth measurement	Following each refueling shutdown prior to commencing power operation
10.	Control Rod	
	Partial movement of all rods	Quarterly ⁽¹⁸⁾
11.	Pressurizer Safety Valves	
	Set point	Every five years ⁽¹¹⁾
12.	Main Steam Safety Valves	
	Set Point	Every five years ⁽¹¹⁾
13.	Containment Isolation Trip	
	Functioning	Each refueling shutdown
14.	Refueling System Interlocks	
	Functioning	Each refueling shutdown
15.	Service Water System	
	Functioning	Each refueling shutdown
16.	Primary System Leakage	
	Evaluate	Monthly ⁽⁶⁾
17.	Diesel Fuel Supply	
	Fuel inventory	Daily
18.	Turbine Stop and Governor Valves	
	Functioning	Annually ⁽⁶⁾
19.	Low Pressure Turbine Rotor Inspection ⁽⁵⁾	
	Visual and magnetic particle or liquid penetrant	Every five years
20.	Boric Acid System	
	Storage Tank and piping temperatures \geq temperature required by Table 15.3.2-1	Daily ⁽¹⁹⁾