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10 CFR 50.4

10 CFR 50.90

June 4, 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 189  
TECHNICAL SPECIFICATION MODIFICATIONS TO MAINTAIN SAFETY  
MARGIN FOR UNIT 2 WITH REPLACEMENT STEAM GENERATORS  
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 Sections 15.2.1, "Safety Limit, Reactor Core," 15.2.3, "Limiting Safety System Settings, Protective Instrumentation," and 15.3.1.G, "Operational Limitations," to maintain safety margin for Unit 2 with replacement steam generators. We are scheduled to replace the steam generators in Unit 2 during the Fall, 1996 refueling outage.

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

DESCRIPTION OF CURRENT LICENSE CONDITION

1. TS Section 15.2.1, "Safety Limit, Reactor Core," Specification 1 states that the combination of thermal power level, coolant pressure, and coolant temperature shall not exceed the limits shown on Figures 15.2.1-1 and 15.2.1-2, "Reactor Core Safety Limits," for Units 1 and 2 respectively.

Figures 15.2.1-1 and 15.2.1-2 represent the loci of points of thermal power, reactor coolant system pressure, and average temperature for which the calculated departure from nucleate boiling ratio (DNBR) is no less than the design limit DNBR or the average enthalpy at the vessel exit is less than the enthalpy of saturated liquid.

2. TS Section 15.2.3, "Limiting Safety System Settings, Protective Instrumentation," Specification 1.B(4) gives the Overtemperature Delta T (OTΔT) reactor trip setpoint function and parameter values. Specification 1.B(5) gives the Overpower Delta T (OPΔT) reactor trip setpoint function and parameter values.

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3. TS Section 15.3.1.G, "Operational Limitations," gives the departure from nucleate boiling (DNB) parameters which must be observed during rated power operation.

#### DESCRIPTION OF PROPOSED CHANGES

1. The safety analyses for operation of Unit 2 with the replacement steam generators were performed to encompass operation of Unit 1. As such, existing Figures 15.2.1-1 and 15.2.1-2, "Reactor Core Safety Limits," for Units 1 and 2 respectively, will be combined into one figure. This new figure will be numbered Figure 15.2.1-1.

However, in order to eliminate the possibility of an inadvertent reactor trip while adjusting the OTΔT/OPΔT setpoints, we desire to make the adjustments during the next scheduled refueling outage for each unit. As such, these proposed setpoints will be implemented for Unit 2 during the Fall, 1996 refueling outage (U2R22) and for Unit 1 during the Spring, 1997 refueling outage (U1R24). If approved, this TSCR will be implemented during U2R22 and the changes to the

Unit 2 setpoints can be made immediately. From the time this TSCR is implemented until U1R24, however, Unit 1 will be operating with the existing setpoints. Hence, existing Figure 15.2.1-1 will continue to apply to Unit 1. Therefore, existing Figure 15.2.1-1 will be renumbered to Figure 15.2.1-2 and the following footnote will be added to the bottom of page 15.2.1-1 to clarify the situation:

"\* Figure 15.2.1-1 applies to Unit 2 following U2R22 and to Unit 1 following U1R24. Prior to U1R24, Figure 15.2.1-2 applies to Unit 1."

The following footnote will be added to the bottom of renumbered Figure 15.2.1-2:

"\* This figure applies to Unit 1 prior to U1R24. Following U1R24, Figure 15.2.1-1 applies to Unit 1."

Existing Figure 15.2.1-2 will be deleted.

The following footnote will be added to the bottom of new Figure 15.2.1-1:

"\* This figure applies to Unit 2 following U2R22 and to Unit 1 following U1R24. Prior to U1R24, Figure 15.2.1-2 applies to Unit 1."

2. Certain inputs to the OTΔT/OPΔT setpoint functions will be revised to maintain safety margin for Unit 2 with the replacement steam generators and to provide for operation at either 2000 psia or 2250 psia primary pressure. The revised setpoint functions will also apply to operation of Unit 1. Also, a typographical error in the OTΔT setpoint function will be corrected.

As mentioned above, we desire to make adjustments to the OTAT/OPAT setpoint functions during the next scheduled refueling outage for each unit. Since this TSCR will be implemented during U2R22, the changes to the Unit 2 setpoints can be made immediately. From the time this TSCR is implemented until U1R24, however, Unit 1 will be operating with the existing setpoints. Therefore, the following footnote will be added to the bottom of page 15.2.3-2 to clarify the situation:

“\* These values apply to Unit 2 following U2R22 and to Unit 1 following U1R24. Prior to U1R24, the values for Unit 1 are:  $T' \leq 573.9^{\circ}\text{F}$ ,  $P' = 2235 \text{ psig}$ ,  $K_1 \leq 1.30$ ,  $K_2 = 0.0200$ , and  $K_3 = 0.000791$ .”

For the same reasons, the following footnote will be added to the bottom of page 15.2.3-3:

“\* These values apply to Unit 2 following U2R22 and to Unit 1 following U1R24. Prior to U1R24, the values for Unit 1 are:  $T' \leq 573.9^{\circ}\text{F}$ , and  $K_4 \leq 1.09$  of rated power.”

3. References to Figures 15.2.1-1 and 15.2.1-2 in the Bases for TS Section 15.2.3 will be modified to delete the association of these figures with a particular unit.
4. Revisions to the DNB related parameters in TS Section 15.3.1.G will be made to maintain safety margin for Unit 2 with the replacement steam generators. The revisions will also apply to operation of Unit 1. The Bases for this section is being revised to support the proposed revision to the raw measured total flow rate limit.

Again, since Unit 1 will be operating with the existing parameters from the time this TSCR is implemented until U1R24, the following footnote is being added to the bottom of page 15.3.1-19:

“\* These values apply to Unit 2 following U2R22 and to Unit 1 following U1R24. Prior to U1R24,  $T_{\text{avg}}$  for Unit 1 shall be maintained below  $578^{\circ}\text{F}$ .”

This footnote does not apply to the changes to reactor coolant system pressure or raw measured total flow rate since these changes maintain the existing Unit 1 values.

## BASIS AND JUSTIFICATION

We are planning to replace the steam generators in PBNP Unit 2 during the Fall, 1996 refueling outage. Westinghouse performed the safety analyses and evaluations for operation of Unit 2 with the replacement steam generators. The analyses and evaluations were performed to support a full-power reactor coolant system average coolant temperature ( $T_{\text{avg}}$ ) window between  $557^{\circ}\text{F}$  and  $573.9^{\circ}\text{F}$ . The analyses and evaluations also support operation at either 2000 psia or 2250 psia. In order to maintain safety margins under these new constraints, certain operating limits must be revised. The proposed changes maintain the margin to safe operation of Unit 2 with the replacement steam generators. The safety analyses and evaluations were performed to cover both units. Thus, the proposed changes will apply to the operation of Unit 1 as well as Unit 2.

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The proposed changes fall within the scope of items that can be relocated to a Core Operating Limits Report (COLR). In anticipation of these changes, we submitted TSCR 185, "Core Operating Limits Report," on December 13, 1995. The purpose of this submittal was to implement a COLR at PBNP with a requested NRC approval date of March, 29, 1996. Our intent was to implement the COLR well in advance of the Fall, 1996 outage and make the changes required to maintain safety margin for Unit 2 with the replacement steam generators in accordance with our 10CFR50.59 safety evaluation process.

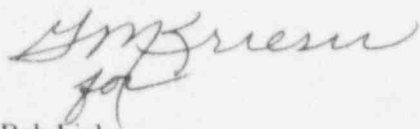
However, in a telephone conference with Mr. Allen Hansen and Ms. Margaret Chatterton of your staff on January 24, 1996, we were informed that the March 29, 1996 approval date could not be met and agreed on an approval date of June 30, 1996. In a telephone conference with Mr. Allen Hansen on March 13, 1996, we were informed that the June 30, 1996 approval date could not be met and that review of TSCR 185 may not begin until September, 1996.

The Fall, 1996 refueling outage is currently scheduled from October 5 to December 15, 1996. We are not confident that TSCR 185 will be approved in time for us to implement the COLR prior to the startup of Unit 2 in December. Therefore, we are submitting this license amendment request as a contingency to incorporate the changes required to regain operating margin for Unit 2 with the replacement steam generators. We request approval of these changes by September 1, 1996. If TSCR 185 is approved prior to September 1, 1996, we will withdraw this license amendment request.

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.

If you require additional information, please contact us.

Sincerely,



Bob Link  
Vice President  
Nuclear Power

KVA

Attachments

cc: NRC Resident Inspector  
NRC Regional Administrator  
PSCW

## **TECHNICAL SPECIFICATIONS CHANGE REQUEST 189**

### **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) Sections 15.2.1, "Safety Limit, Reactor Core," 15.2.3, "Limiting Safety System Settings, Protective Instrumentation," and 15.3.1.G, "Operational Limitations," to maintain safety margin for Unit 2 with replacement steam generators. We are scheduled to replace the steam generators in Unit 2 during the Fall, 1996 refueling outage.

#### **EVALUATION**

We are planning to replace the steam generators in PBNP Unit 2 during the Fall, 1996 refueling outage. Westinghouse performed the safety analyses and evaluations for operation of Unit 2 with the replacement steam generators including; large and small break LOCA, LOCA forces, non-LOCA events, LOCA long and short term mass and energy release, steam generator tube rupture, and systems and components. All analyses and evaluations were performed in accordance with NRC approved methodologies.

The safety analyses and evaluations examined the operating conditions with the new steam generators including an average coolant temperature ( $T_{avg}$ ) window between 557°F and 573.9°F, an operating pressure of either 2000 or 2250 psia, a reduced thermal design flow, a slightly larger primary volume, and a slightly smaller secondary volume.

In order to maintain safety margins under these new constraints, certain operating limits must be revised. The proposed changes include a revised Reactor Core Safety Limits (RCSL) figure, revised inputs to the overtemperature delta T and overpower delta T (OTΔT/OPΔT) setpoint functions, implementation of an average coolant temperature ( $T_{avg}$ ) operating band, and restoration of the reactor coolant system (RCS) raw measured flow rate limit to the Unit 1 values.

The safety analyses and evaluations reached the following conclusions:

- The changes associated with the replacement steam generators do not result in exceeding any LOCA design or regulatory limits.
- Non-LOCA acceptance criteria continue to be met.
- The containment design pressure limit will continue to be met.
- Steam generator tube rupture doses meet the acceptance criteria of a "small fraction" of 10 CFR 100 limits.

In order to maintain one set of safety analyses for both units, the analyses and evaluations for operation of Unit 2 with the replacement steam generators were performed to encompass the operation of Unit 1. Therefore, the proposed changes apply to the operation of both units and maintain the margin of safety for each.

### **CONCLUSION**

The proposed changes were arrived at through safety analyses and evaluations performed in accordance with NRC approved methodologies. The proposed changes will ensure the safe operation of both Unit 2 with replacement steam generators and Unit 1 with its existing steam generators. Therefore, approval of these changes will ensure and enhance the continued safe operation of Point Beach Nuclear Plant.



**TECHNICAL SPECIFICATION CHANGE REQUEST 189**  
**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). The proposed changes maintain the margin to safe operation for Unit 2 with the replacement steam generators. In order to maintain one set of safety analyses for both units, the analyses for operation of Unit 2 with the replacement steam generators were performed to encompass the operation of Unit 1. Therefore, the proposed changes apply to the operation of both units and maintain the margin of safety for each. The proposed changes do not change, degrade, or preclude the prevention or mitigation of the consequences of any accident described in the FSAR. Therefore, the probability or consequences of a previously evaluated accident are not significantly increased as a result of these changes.

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 changes do not involve a change to the plant design. The proposed changes maintain the margin to safe operation for Unit 2 with the replacement steam generators. In order to maintain one set of safety analyses for both units, the analyses for operation of Unit 2 with the replacement steam generators were performed to encompass the operation of Unit 1. Therefore, the proposed changes apply to the operation of both units and maintain the margin of safety for each. These changes do not affect any of the parameters or conditions that contribute to initiation of any accidents. In addition, the safety functions of safety-related systems and components, which are related to accident mitigation, have not been altered. Therefore, the proposed changes 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 changes maintain the margin to safe operation for Unit 2 with the replacement steam generators. In order to maintain one set of safety analyses for both units, the analyses for operation of Unit 2 with the replacement steam generators were performed to encompass the operation of Unit 1. Therefore, the proposed changes apply to the operation of both units and maintain the margin of safety for each. The proposed changes have no affect on the availability, operability, or performance of the safety-related systems and components described in the Technical Specifications. Therefore, the proposed changes will not create a significant reduction in a margin of safety.