Wisconsin Electric
A WISCONSIN ENERGY COMPANY

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10CFR50.4
10CFR50.90

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U.S. NUCLEAR REGULATORY COMMISSION
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Ladies and Gentlemen:

DOCKETS 50-266 AND 50-301
TECHNICAL SPECIFICATIONS CHANGE REQUEST 214
SPENT FUEL POOL STORAGE REQUIREMENTS
POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

Wisconsin Electric Power Company, licensee, hereby requests amendments to Facility Operating Licenses DPR-24 and DPR-27 for the Point Beach Nuclear Plant, Units 1 and 2, respectively. The purpose of the proposed amendments is to incorporate changes to the plant Technical Specifications.

The Point Beach Nuclear Plant (PBNP) Technical Specifications 15.5.4 allows either of two separate methods for verifying the acceptability of reactor fuel for placement and storage in the Spent Fuel Pool. For a fuel assembly enriched to a level greater than the specified base enrichment, a minimum number of Integral Fuel Burnable Absorber (IFBA) rods are required dependent on enrichment, or alternatively, a maximum assembly reference infinite multiplication factor K_∞, including a 1% ΔK bias, must be met.

Wisconsin Electric received Nuclear Safety Advisory Letter (NSAL) 99-003, dated February 26, 1999, from Westinghouse Energy Systems, provider of the criticality analysis for the PBNP Spent Fuel Pool. The NSAL communicated information that Westinghouse had recently determined that use of the reference K_∞ method could lead to IFBA requirements that are less conservative than those determined using the IFBA enrichment curve methodology. Therefore, Westinghouse is discontinuing use of the reference K_∞ methodology. Subsequently, changes are being requested to remove this methodology from the Technical Specifications.

All fuel stored in the spent fuel pool at PBNP continues to meet the existing storage requirements without the use of the reference K_∞ method. The IFBA enrichment curve methodology was used

in determining the acceptability of the PBNP spent fuel pool for storage of Westinghouse 422V+ fuel. An amendment request was submitted by Wisconsin Electric on June 22, 1999 for approval to use this fuel design at PBNP.

We have determined that the proposed changes are administrative only as they eliminate an allowance for use of a methodology that is no longer being used and therefore meet the categorical exclusion criteria set forth in 10 CFR 51.22 (c) (10). In accordance with 10 CFR 51.22 (b) an environmental assessment or impact statement need not be prepared. Alternatively, Wisconsin Electric Power Company requests the Nuclear Regulatory Commission to issue and publish a finding of no significant environmental impact pursuant to 10 CFR 51.21, 51.32, and 51.35.

A description of requested changes, Safety Evaluation, determination of no significant hazards and a mark-up of existing Technical Specifications with the proposed changes included are attached.

Please contact us if you have any questions.

Sincerely,

Richard H. Mende

FOR Mark E. Reddemann
Site Vice President
Point Beach Nuclear Plant

TGM/tat

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

Attachments

Subscribed to and sworn before me this
1st day of July, 1999

Mary B. Kudelka Mary B. Kudelka
Notary Public, State of Wisconsin
My commission expires on 11/11/2001

DOCKETS 50-266 AND 50-301
DESCRIPTION OF CHANGES
TECHNICAL SPECIFICATIONS CHANGE REQUEST 214
SPENT FUEL POOL STORAGE REQUIREMENTS
POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

Wisconsin Electric Power Company (WE), licensee, requests amendments to Facility Operating Licenses DPR-24 and DPR-27 for the Point Beach Nuclear Plant, Units 1 and 2, respectively. The purpose of the proposed amendments is to incorporate changes to the plant Technical Specifications. The requested changes will eliminate one of the methods used for determining the acceptability of fuel to be stored in the Spent Fuel Pool (SFP) at the Point Beach Nuclear Plant (PBNP). WE was recently notified by Westinghouse Energy Systems, present supplier of fuel and supporting analyses to WE, that they would no longer utilize this method. Therefore, this is an administrative change to eliminate this evaluation option.

Technical Specification 15.5.4.2 presently states:

> The new and spent fuel storage racks are designed so that it is impossible to store assemblies in other than the prescribed storage locations. The fuel is stored vertically in an array with sufficient center-to-center distance between assemblies to assure $K_{eff}<0.95$ with the storage pool filled with unborated water and with the fuel loading in the assemblies limited to 5.0 w/o U-235,with or without axial blanket loadings. Each assembly with a fuel loading greater than 4.6 w/o U-235 must contain Integral Fuel Burnable Absorber (IFBA) rods in accordance with Figure 15.5.4-1 or have a reference infinite multiplication factor, K_{∞}, less than or equal to 1.49364, which includes a 1% ΔK reactivity bias. An inspection area shall allow rotation of fuel assemblies for visual inspection, but shall not be used for storage.

WE recently received Nuclear Safety Advisory Letter (NSAL) 99-003, dated February 26, 1999, from Westinghouse Energy Systems. The NSAL communicated information that Westinghouse had recently determined that use of the reference K_{∞} method could lead to IFBA requirements that are less conservative than those determined using the IFBA enrichment curve methodology. Therefore, Westinghouse is discontinuing use of the reference K_{∞} methodology. Subsequently, changes are being requested to remove this methodology from the Technical Specifications.

Technical Specification 15.5.4.2 is proposed to be revised to eliminate this method and read:

> The new and spent fuel storage racks are designed so that it is impossible to store assemblies in other than the prescribed storage locations. The fuel is stored vertically in an array with sufficient center-to-center distance between assemblies to assure K_{eff}<0.95 with the storage pool filled with unborated water and with the fuel loading in the assemblies limited to 5.0 w/o U-235, with or without axial blanket loadings. Each assembly with a fuel loading greater than 4.6 w/o U-235 must contain Integral Fuel Burnable Absorber (IFBA) rods in accordance with Figure 15.5.4-1. An inspection area shall allow rotation of fuel assemblies for visual inspection, but shall not be used for storage.

All fuel stored in the spent fuel pool at PBNP continues to meet the existing storage requirements without the use of the reference K_∞ method. The IFBA enrichment curve methodology was used in determining the acceptability of the PBNP spent fuel pool for storage of Westinghouse 422V+ fuel. An amendment request was submitted by Wisconsin Electric on June 22, 1999, for approval to use the 422V+ fuel design at PBNP.

DOCKETS 50-266 AND 50-301
SAFETY EVALUATION
TECHNICAL SPECIFICATIONS CHANGE REQUEST 214
SPENT FUEL POOL STORAGE REQUIREMENTS
POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

Wisconsin Electric Power Company, licensee, hereby requests amendments to Facility Operating Licenses DPR-24 and DPR-27 for the Point Beach Nuclear Plant, Units 1 and 2, respectively. The purpose of the proposed amendments is to incorporate changes to the plant Technical Specifications.

The Point Beach Nuclear Plant (PBNP) Technical Specifications 15.5.4, "Fuel Storage," applies to the capacity and storage arrays of new and spent fuel at PBNP. Technical Specification 15.5.4.2 stipulates the requirements for storage of new or spent fuel in the new and spent fuel storage racks. The purpose of the requirements is to ensure that fuel stored in an array in the spent fuel pool racks remains subcritical with K_{eff} less than 0.95 with unborated water in the SFP at the 95% probability and 95% confidence level. In addition, a minimum boron concentration of 1800 ppm in the SFP required by TS 15.5.4.3 provides additional margin to criticality.

The present requirements for storage of reactor fuel in the new fuel storage racks and in the spent fuel pool as stipulated by TS 15.5.4.2 were reviewed and approved by the NRC with Amendments 179 and 183, dated September 4, 1997, for PBNP Units 1 and 2, respectively. Fuel up to and including 4.6 w/o U-235 may be stored in the SFP without restriction. Fuel enriched to greater than 4.6 w/o U-235 must include Integral Fuel Burnable Absorber (IFBA) rods in accordance with TS Figure 15.5.4-1 or have a reference infinite multiplication factor, K_∞, less than or equal to 1.49364, which includes a 1% ΔK reactivity bias.

Westinghouse used a technique known as "reactivity equivalencing" to ensure that fuel that meets the U-235 enrichment versus IFBA requirements of TS figure 15.5.4-1 or reference K_∞ less than 1.49364 is no more reactive than the 4.6 w/o U-235 fuel and thus ensure the K_{eff} of the rack array loaded with fuel remain less than 0.95. This technique takes credit for the decrease in reactivity due to the IFBA material coated on the outside of the uranium dioxide fuel pellet.

Wisconsin Electric received Nuclear Safety Advisory Letter (NSAL) 99-003, dated February 26, 1999, from Westinghouse Energy Systems, provider of the criticality analysis for the PBNP Spent Fuel Pool and new fuel storage racks. The NSAL communicated information that Westinghouse had recently determined that use of the reference K_∞ method could lead to IFBA requirements that are less conservative than those determined using the IFBA enrichment curve methodology. Therefore, Westinghouse is discontinuing use of the reference K_∞ methodology. Subsequently, changes are being requested to remove this methodology from the Technical Specifications.

All fuel stored in the spent fuel pool at PBNP continues to meet the existing storage requirements defined by TS 15.5.3.2 and Figure 15.5.4-1 without the use of the reference K_∞ method.

This change is administrative only in that it removes a Technical Specification allowance no longer being supported by the fuel vendor. Remaining requirements, as approved by Amendments 179 and 183 for Units 1 and 2, respectively, ensure the design requirements of the SFP to maintain K_{eff} of the fully loaded storage array less than the 0.95 are met. Therefore, storage of fuel in accordance with the proposed amendment will not be inimical to the health and safety of the public or common defense and security.

DOCKETS 50-266 AND 50-301
NO SIGNIFICANT HAZARDS DETERMINATION
TECHNICAL SPECIFICATIONS CHANGE REQUEST 214
SPENT FUEL POOL STORAGE REQUIREMENTS
POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

In accordance with the requirements of 10CFR50.90, Wisconsin Electric Power Company, licensee, hereby requests amendments to Facility Operating Licenses DPR-24 and DPR-27. The purpose of the amendments is to administratively remove an allowed methodology for determining the acceptability of fuel for storage in the Spent Fuel Pool. This methodology is no longer supported by the fuel vendor. Remaining requirements ensure that the design basis requirements for fuel storage are met.

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 follows:

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

   The proposed changes are administrative only in that they remove the ability to use the reference $K\infty$ method for determining the acceptability of fuel for placement and storage in the spent fuel pool and new fuel storage vault at the Point Beach Nuclear Plant. Use of the remaining approved method and requirements ensure that fuel placed or stored in the spent fuel pool and new fuel storage vault continues to be in accordance with their respective design and licensing basis. That is, fuel in the storage array will continue to meet the design basis requirement that K_{eff} remain less than 0.95. No modifications are being made to the spent fuel pool and its cooling system or to the new or spent fuel storage racks. Since the design basis of the fuel and storage racks continue to be met, operation in accordance with the proposed amendments cannot create a significant increase in the probability or consequences of an accident previously evaluated.

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.**

   No physical modifications are being made to the spent fuel pool and cooling system or to the new or spent fuel storage racks. All design basis requirements for ensuring the safe storage of fuel in the spent fuel pool continue to be met. Therefore, operation in accordance with the

proposed amendments cannot create the possibility of a new or different kind of accident from any accident previously evaluated.

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

Technical Specification requirements for placing and storing fuel in the spent fuel pool continue to ensure that the design basis requirement, K_{eff} for the fuel array in the spent fuel pool and new fuel storage remains less than 0.95, is maintained. The existing margin of safety established by this design requirement is maintained. Therefore, operation in accordance with the proposed amendments cannot create a reduction in a margin of safety.