Wisconsin Electric POWER COMPANY

Point Beach Nuclear Plant 6610 Nuclear Rd., Two Rivers, WI 54241

NPL 98-0269

April 30, 1998

Document Control Desk U.S. NUCLEAR REGULATORY COMMISSION Mail Station P1-137 Washington, DC 20555

Ladies/Gentlemen:

DOCKETS 50-266 AND 301 VERIFICATION OF SEISMIC PIPING CLASS INTERFACES POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

In a letter to the Commission dated July 25, 1997, we documented actions being taken by Wisconsin Electric Power Company in response to the identification of instances where seismic class boundaries are not in strict conformance with the Final Safety Analysis Report (FSAR), criteria. As noted in the July 25, 1997 letter, a program to verify and ensure conformance with design- and licensing-basis criteria for seismic class boundaries was being instituted.

On December 19, 1997, we provided a status report of the actions being taken by Wisconsin Electric in response to the issue of seismic boundary conformance verification. The status report addressed our efforts in two specific tasks:

- 1. Verification of Seismic Adequacy of RWST/SFPC Recirculation Loop
- 2. Verification of Seismic Class Piping System Interfaces

These two tasks encompass the remaining issues of LERs 50-301/92-002-00, 50-266/97-021-00, and 50-266/97-028-00.

This letter provides a status update on these program activities and the schedule for final resolution of these items.

Verification of Seismic Adequacy of Refueling Water Storage Tank / Spent Fuel Pool Cooling (RWST/SFPC) Recirculation Loop

As noted in the December 19, 1997 letter, cor program objectives for the task of verifying the seismic adequacy of the RWST/SFPC recirculation loop piping were to have completed the preparation and review of nine piping/support analyses by February 28, 1998, and to have all necessary support modifications installed within four months of the completion of the U1R24 refueling outage.



of Wisconsin Energy Corporation



NPL 98-0269 4/30/98 Page 2

The nine piping stress analyses have been since prepared, and eight were approved by the February target date. The ninth analysis is currently being reviewed and is being reanalyzed based on comments received during its review. As a result of the piping stress analyses, it was determined that roughly 40 pipe support modifications will be required. An additional report that addresses the qualification of the existing pipe supports in the affected piping systems (most of which are ganged to unanalyzed piping) is currently in progress. It is anticipated that an additional 40 pipe support modifications may result from this evaluation. The projected completion date for these analyses is May 30, 1998.

Required support upgrades will be installed under Modification Request 98-021. The preparation of pipe support design change packages is currently in progress. As noted in the December 19, 1997 letter, our project schedule calls for installation of the required support modifications within four months of the completion of the U1R24 refueling outage.

Verification of Seismic Class Piping System Interfaces

As noted in the status update of December 19, 1997, a database of all Point Beach seismic class interfaces has been developed. This database, developed from the original marked-up piping and instrument diagrams (P&IDs) transmitted from Westinghouse to Bechtel and from the original "Revision 0" P&IDs, has been compared to the seismic class boundaries indicated on the current P&IDs and to the Safety Related (SR) interfaces shown on the Point Beach Green Line Diagrams (GLDs). From this cross-referencing effort, a total of roughly 1125 Seismic Class I to lower class boundaries were identified.

To determine the adequacy of the plant's seismic class interfaces, each of the 1125 seismic boundaries has since been evaluated for literal conformance with the FSAR definition of a seismic boundary:

"The interface between a Class I system and a lower Class system is at a normally closed valve or a valve which is capable of remote operation from the control room."

Of the 1125 seismic class boundaries that had been identified, it was determined that roughly 215 did not satisfy this literal definition. Typically, such "outliers" occurred at locations where the function of the Class I system is protected by automatic trip valves such as check valves or where the designated seismic boundary was located near, but not directly at, a valve which would satisfy the FSAR isolation criteria and would protect the safety function of the seismic Class I piping. Although such seismic boundaries were determined not to be in strict literal compliance with the FSAR, there is evidence to conclude that they do conform to the original plant design basis requirements to ensure that the failure of a lower class system or component will not propagate to the higher class system. Consequently, the remaining database boundaries were subsequently evaluated against the following alternative criterion:

"The interface between a Class I and a lower class system is at a normally closed valve, automatic trip valve, or a valve which is capable of remote operation from the control room. The location of this valve is such that the lower Class system can be isolated without degrading the safety function(s) of the Class I system."

Since this criterion was determined to be functionally equivalent to the FSAR definition of a seismic boundary and is consistent with the intent of the original design basis of the plant, it was subsequently applied to the remaining 215 valves.

As a result of the initial population of 1125 seismic boundaries, it was determined that roughly approximately 31 boundaries may not satisfy this criteria. Evaluations of each of the 31 boundaries indicates that 20 of the boundaries occur at normally-open pressure or flow indicator root valves (considered boundaries for the purpose of this program because of the non-SR status of the pressure or flow gauge itself) and four boundaries at normally open Reactor Coolant System (RCS) root valves on the 3/8"-diameter reactor vessel flange leak detection tubing. The remaining seven boundaries occur on piping that is Class III, but was either seismically installed, or was derated via plant modifications. Each of these boundaries will be walked down and evaluated for seismic adequacy. The projected date for completion of the preliminary walkdowns and operability evaluations of the remaining boundaries outside containment and the Unit 1 containment outlier population is May 4, 1998. The walkdowns of the Unit 2 containment outliers will occur during the fall U2R23 refueling outage (currently scheduled for September, 1998).

The results of the screenings and evaluations will be reviewed and verified by PBNP Operations and Site Engineering personnel. This review is targeted for completion prior to the start of the U2R23 refueling outage.

Although no modifications other than those previously identified for the RWST/SFPC recirculation piping have been identified at this time, any detailed seismic evaluations necessary to demonstrate conformance to the design basis seismic interface requirements will be completed as stated in our December 19, 1997, letter by January 21, 1999. Any modifications which may be required as a result of those evaluations will then be installed in a manner consistent with the guidance of Generic Letter 91-18.

We believe this program is responsive to the identified concerns and that its completion will ensure that Point Beach is operated and maintained in accordance with its design and licensing basis for seismic class boundaries. We will communicate to the Commission the installation schedule for any identified modifications. We will keep you informed of our progress, of any issues which may be identified, and of any corrective action which may be required. NPL 98-0269 4/30/98 Page 4

Please contact us if you have any further questions regarding this issue.

Sincerely

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cc: NRC Resident Inspector NRC Regional Administrator NRC Project Manager