



231 W. Michigan, P.O. Box 2046, Milwaukee, WI 53201

[414] 221-2345

VPNPD-90-498  
NRC-90-127

December 18, 1990

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

Gentlemen:

DOCKET NOS. 50-266 AND 50-301  
REQUEST FOR EXTENSION OF ANALYSIS COMPLETION DATE PER ITEM 1.d OF  
NRC IE BULLETIN 88-11  
POINT BEACH NUCLEAR PLANT UNITS 1 AND 2

- References:
- 1) Wisconsin Electric Power Company Letter No. VPNPD-89-314, dated 05/31/89, to the NRC on the subject of "Submittal of Justification for Continued Operation Regarding Pressurizer Thermal Stratification, Point Beach Nuclear Plant Units 1 and 2".
  - 2) Letter from the NRC to C. W. Fay, dated 09/25/90, on the subject of "NRC Bulletin No. 88-11, Pressurizer Surge Line Thermal Stratification - Evaluation of WOG Bounding Analysis (Tac. Nos. 72155 and 72156)".

In a letter dated May 31, 1989, Wisconsin Electric Power Company (WE) submitted a Justification for Continued Operation (JCO), as required in Action Item 1.b of IE Bulletin 88-11, for Point Beach Nuclear Plant (PBNP) Units 1 and 2 (Reference 1). This JCO was submitted because we could not demonstrate code compliance to the latest ASME Section III Code requirements for thermal stratification effects on the pressurizer surge line (PSL) since the PBNP code of record is USAS B31.1, 1967 Edition. USAS B31.1 does not require formal fatigue analyses for piping, and consequently, PBNP did not have a basis from which an assessment of the thermal stratification effects could be evaluated.

The JCO demonstrated that PBNP could operate for a maximum of ten additional heatup and cooldown cycles for each unit. This conclusion was supported by a Westinghouse Owners Group (WOG) generic bounding analysis that was documented in WCAP-12277

9101020224 901218  
PDR ADCCK 05000266  
Q PDR

81051

IF30  
110

entitled "Westinghouse Owners Group Bounding Evaluation for Pressurizer Surge Line Thermal Stratification", dated June 1989. The NRC completed a review of this WCAP in September 1990. Subsequent to this review, the NRC has accepted the JCO for PBNP in a letter dated September 25, 1990 (Reference 2).

WE also committed in our May 31, 1989 letter to satisfying the stress and fatigue requirements specified in Action Item 1.d of the bulletin by participating in a generic detailed analysis program conducted by the WOG (Reference 1). This program was initiated in June 1989. The evaluation was expected to be completed in May 1990.

WE was informed by Westinghouse Electric Corporation in May 1990 that PBNP Units 1 and 2 would not be bounded by the generic detailed analysis as documented under WCAP-12639 entitled "Westinghouse Owners Group Pressurizer Surge Line Thermal Stratification Generic Detailed Analysis Program MUHP-1091 Summary Report", dated June 1990. The piping configuration chosen for the water solid heatup analysis group (which is conservative for PBNP) did not demonstrate code compliance for pipe stress and fatigue requirements when the Stress Intensification Factors for the long radius elbows that are utilized at PBNP were applied to the five-diameter radius bends analyzed in the Westinghouse model. Westinghouse indicated with a high degree of confidence that PBNP would demonstrate Code compliance with a plant specific analysis for thermal stratification effects on the PSL. The plant specific analysis would allow removal of conservatisms inherent in the generic approach used in the WOG analyses.

Pursuant to this notification, WE developed a specification for a plant specific PSL thermal stratification analysis for both units at PBNP and solicited bids for completing the necessary analyses. The contract for this work was awarded to Sargent and Lundy Engineers (S&L) in October, 1990.

The stress and fatigue analyses are currently under way. S&L reports that they are approximately 50% complete with their analysis. However, they are currently behind schedule because the analyses generated to date have required more detailed and refined methodologies than originally expected to demonstrate code compliance. S&L has every expectation that once completed, the analyses will demonstrate code compliance for the pressurizer surge lines in Units 1 and 2.

We believe that even though PBNP is not bounded by the generic approach taken in the WOG detailed grouping analysis (WCAP-12639),

Document Control Desk  
December 18, 1990  
Page 3

PBNP still falls under the initial generic bounding analysis (WCAP-12277), and therefore, the basis used for the JCO submitted to the NRC in May of 1989 that allows a maximum of ten additional heatup and cooldown cycles for continued plant operation is still valid for PBNP.

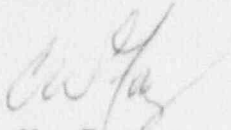
PBNP has had three heatup and cooldown cycles on Unit 1 and two on Unit 2 since submitting the JCO for PSL thermal stratification effects. We expect to have one additional cycle on Unit 1 prior to completion of the thermal stratification analysis. This leaves a sufficient number of cycles to maintain an adequate safety margin, and therefore, we have concluded that there are no short term safety concerns associated with thermal stratification effects on the surge lines at PBNP.

NRC IE Bulletin 88-11 Action Item 1.d requests licensees to update their stress and fatigue analyses to ensure compliance with applicable Code requirements no later than two years after receipt of the bulletin. WE will be unable to meet this schedule due to the increased complexity and scope of the evaluation. Accordingly we are submitting an alternate schedule for completion of Action Item 1.d of the bulletin.

We expect that the thermal stratification analysis for the PBNP pressurizer surge lines will be completed by May 31, 1991. We anticipate that this analysis will demonstrate Code compliance for the forty year design life of the plant. The Bulletin 88-11 extension will allow S&L to complete their analyses and allow for review of the analysis results by WE to ensure all Code requirements are met. WE will provide a description of the analytical approaches used and a summary of the results at that time.

Please contact us if you have any questions concerning our actions in this manner.

Very truly yours,



C. W. Fay  
Vice President  
Nuclear Power

Copy to: NRC Resident Inspector  
NRC Regional Administrator