

CATEGORY 1

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STEINHARDT, C.R. Wisconsin Public Service Corp.
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 Document Control Branch (Document Control Desk)

SUBJECT: Advises that analysis results will be submitted to NRC re
GL 96-06, "Assurance of Equipment Operability & Containment
Integrity During Design-Basis Accident Conditions," within
120 days.

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WISCONSIN PUBLIC SERVICE CORPORATION

600 North Adams • P.O. Box 19002 • Green Bay, WI 54307-9002

October 30, 1996

10 CFR 50.54(f)

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

Ladies/Gentlemen:

Docket 50-305
Operating License DPR-43
Kewaunee Nuclear Power Plant
Thirty-Day Response to Generic Letter 96-06

- References:
- 1) Generic Letter 96-06: "ASSURANCE OF EQUIPMENT OPERABILITY AND CONTAINMENT INTEGRITY DURING DESIGN-BASIS ACCIDENT CONDITIONS," dated September 30, 1996
 - 2) Letter from C.R. Steinhardt (WPSC) to Document Control Desk (NRC), dated May 5, 1989
 - 3) Letter from M.A. Ring (NRC) to K.H. Evers (WPSC), dated June 15, 1990

Reference 1 requested all licensees evaluate their plants to determine if they are susceptible to:

1. Water hammer in the piping system supplying water to the containment fan coil units (FCUs) following a design basis loss of coolant accident (LOCA) or main steam line break (MSLB) in containment coincident with a loss of offsite power (LOOP),
2. The formation of two phase flow in the containment FCUs or associated piping following a design basis LOCA or MSLB, and
3. The potential to over-pressurize isolated components and piping that penetrate containment following a design basis LOCA or MSLB inside containment.

The reference also requested Licensees provide the Nuclear Regulatory Commission (NRC) with a 30-day and a 120-day response to these concerns. This letter provides the 30-day response requested by the NRC.

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The attachment to this letter provides a status of Wisconsin Public Service Corporation's (WPSC's) assessment of these issues to date, a schedule for completing the assessment, and a schedule for implementing corrective actions when, and if, they are determined to be necessary. WPSC is also following industry initiatives on this issue. If these initiatives develop a safer or more efficient method of resolving these concerns than outlined in this letter, WPSC will notify the NRC of significant changes in our approach to resolve these matters.

In summary, WPSC is in the process of evaluating the concerns outlined in the generic letter. WPSC anticipates completing the initial assessment of the concerns within 120 days and will submit the analysis results to the NRC prior to January 28, 1997. If corrective actions are determined to be required, a schedule for completing these actions will also be provided in the January 28, 1997 submittal.

Sincerely,



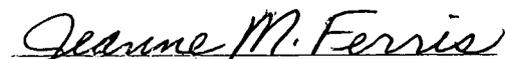
C. R. Steinhardt
Senior Vice President - Nuclear Power

TJW

Attach.

cc - US NRC Region III
US NRC Senior Resident Inspector

Subscribed and Sworn to
Before Me This 30th Day
of October, 1996


Notary Public, State of Wisconsin

My Commission Expires:
June 13, 1999

ATTACHMENT

Letter from C. R. Steinhardt (WPSC)

To

Document Control Desk (NRC)

Dated

October 30, 1996

RE: Generic Letter 96-06

Water Hammer

WPSC has contracted Sargent and Lundy Engineers to perform an analysis of Kewaunee's containment FCUs and associated piping. The analysis is similar to that performed by Sargent and Lundy for other licensees and uses the methodology described in NUREG/CR-5220.

In order to determine the operability of the containment FCUs, an assessment was conducted of the FCU which would experience the most severe water hammer loads. The assessment to date indicates that this FCU will experience water column separation and boiling. The forces from the predicted water hammer will produce stresses in excess of those allowed by the Updated Safety Analysis Report (USAR); however, they are less than the operability limits established to address IE Bulletin 79-14. If the final evaluation of the worst case containment FCU demonstrates stresses are less than the 79-14 operability limits, then no design changes will be implemented during the current outage. This course of action ensures the operability of the containment FCUs and meets the intent of Generic Letter 91-18.

The interim (one Cycle) operability criteria in Generic Letter 91-18 refers to Appendix F of Section III of the ASME Code. The Kewaunee plant was built to USA Standard Code for Pressure Piping B31.1-1967, which predates Section III of the ASME Code. Therefore, Appendix F of the code can not be directly applied to the Kewaunee Plant. Kewaunee's operability criteria, reference 2, has been reviewed and approved by the NRC, reference 3, for use in responding to IE Bulletin 79-14. Kewaunee's 79-14 criteria provides assurance piping systems will not rupture and will continue to perform their intended function. Therefore, it is reasonable and safe to use these criteria to allow operation of the Kewaunee plant for one cycle while actions are planned to return the systems to original stress allowables.

The conclusions of the operational assessment will be transmitted to the NRC by January 28, 1997. The remaining containment FCUs and their associated piping will be analyzed prior to our next scheduled refueling outage. If the final analysis indicates a need, design changes to reduce piping stress to less than USAR allowables will be implemented during Kewaunee's next refueling outage, currently scheduled for the spring of 1998.

Two Phase Flow

A preliminary review of the heat transfer calculations for the containment FCUs has determined that two phase flow will not occur in the FCUs or the down stream piping once full flow has been re-initiated. A more in-depth review will be completed prior to January 28, 1997.

Overpressurization of Isolated Piping

The analysis of this concern will be completed prior to January 28, 1997.