



DMB

WISCONSIN PUBLIC SERVICE CORPORATION

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

September 8, 1986

Mr. J. G. Keppler, Regional Administrator
Region III
U.S. Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, IL 60137

Dear Mr. Keppler,

Docket 50-305
Operating License DPR-43
Kewaunee Nuclear Power Plant
Update to IE Bulletin 85-03 Response

- References:
- 1) I.E. Bulletin 85-03 - Motor Operated Valve Common Mode Failures During Plant Transients Due to Improper Switch Setting
 - 2) Letter from Mr. D. C. Hintz to Mr. J. G. Keppler, dated May 14, 1986
 - 3) Letter from Mr. Charles E. Norelius to Mr. D. C. Hintz, dated August 1, 1986

Reference 3 requested additional information concerning WSPC's response to IE Bulletin 85-03 (Reference 2). During a phone conversation between members of my staff and Mr. Richard J. Kiessel (IE) of the Nuclear Regulatory Commission additional information was obtained clarifying exactly what is being requested in Reference 3. Mr. Kiessel also expressed an additional concern of our response to IE Bulletin 85-03 which is included in this submittal. This submittal addresses your concern identified in Reference 3, the concern of Mr. R. J. Kiessel, and provides an update on our progress to implement actions requested by IEB 85-03. Finally, we have transmitted to Mr. Kiessel a copy of the Westinghouse Owners Group - "Safety Related MOV Program Final Report", to clarify our justification for maximum pressure differentials for valves included in the scope of IEB 85-03.

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IEH



NRC Concern from Reference 3

The preliminary review of your initial response to IE Bulletin 85-03 "Motor-Operated Valve Common Mode Failures During Plant Transients Due To Improper Switch Settings" indicates that it does not contain a description of the program to assure valve operability as requested by Action Item e of the Bulletin. Additional information is requested within one month of receipt of this letter.

WPSC Response

Clarification of this concern provided by Mr. Kiessel revealed that additional information was only being requested in regard to our program to ensure valve operability (Action Item c of IEB 85-03).

Original Response

Justification of a test method (MOVATS, VMODS, etc.) for valves not undergoing full differential pressure testing will be provided in the future. Due to the uncertain nature of this testing method, no specific date for completion can be set at this time. An update to this response will be provided when a test method and time frame have been finalized.

Updated Program

The test method proposed by WPSC (i.e., MOVATS, VMODS, etc.) is referred to as valve signature analysis testing. Mr. Kiessel stated that valve signature analysis testing by itself would not be an acceptable alternative to the full flow maximum differential pressure testing method. This is due to the uncertainty in the original design numbers supplied to Limitorque by the valve manufacturer. It is our understanding that alternatives to full flow maximum differential pressure testing are currently being discussed between NRC and the

industry. Should alternate test methods receive NRC approval, WPSC would review these methods for application at KNPP. Should we find an approved method applicable to KNPP, it would obviate the need for full flow maximum differential pressure testing.

Should WPSC determine that an alternate method is not applicable to KNPP then we will perform full flow maximum differential pressure testing for the required valves where feasible. In addition, these valves will also have signature analysis testing done. After completing both tests a comparison of the torque or thrust developed under the maximum differential pressure conditions will be made against the original design documents to ensure our design documents are conservative. Subsequently, valves which cannot be subject to maximum differential pressure conditions will have a 10% margin added to their design torque and thrust values. Testing will then be performed to demonstrate the valve operator's ability to develop this force without tripping their torque switches.

NRC Concern (Mr. Kiessel)

In response to Action Item b, WPSC stated that they were currently reviewing all motor operated torque switch settings. Any discrepancies between the actual setting and the manufacturer's recommended setting will be corrected by May 31, 1986. During the phone conversation Mr. Kiessel requested additional information on the manufacturer's recommended setting.

WPSC Response

The manufacturer's recommended torque switch setting is a value specified by the Limitorque Bill of Material for valve operators supplied to our plant. The specified values are such that the operator can develop the needed torque to overcome the maximum design differential pressure. The design differential pressures are included in Reference 2 and were supplied to the valve vendors by

Westinghouse for NSSS systems and Fluor Engineering (previously Pioneer) for Balance of Plant systems. All valve operators included in the scope of IEB 85-03 currently have their torque switches set at or above the manufacturer's recommended setting.

Finally, the following information is being provided as an update to Action Items b and d of IE Bulletin 85-03.

Action Item b - Original Response

WPS is currently reviewing all motor operator torque switch settings. Any discrepancies between the actual setting and the manufacturer's recommended setting will be corrected by May 31, 1986. A procedure is being developed by the maintenance department to ensure that torque bypass and position limit switches are correctly set. This procedure will be completed prior to the start of the 1987 refueling outage. During the 1987 refueling outage all valves contained in Table I & II will have their switch positions verified. During the 1985 refueling outage design change request (DCR 1695) performed a review of safeguards motor control center overload devices to verify adequate sizing. Included with this review was the Limit-torque motor operators which are included in this bulletin. Therefore no additional work is planned in this area.

Action Item b - Update

All valve operators contained in the scope of IEB 85-03 currently have their torque switches set at or above the manufacturer's recommended setting. A procedure has been developed and approved to ensure torque bypass, position limit and torque switches are properly set and maintained.

Action Item d - Original Response

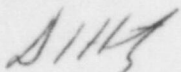
All motor operators contained in Tables I and II are currently maintained using preventative maintenance procedures. These procedures will be reviewed to ensure explicit acceptance criteria for torque and torque bypass switch settings are included. These procedures will be reviewed and revised prior to the 1987 refueling outage. Proper operation of limit switches is verified biennially under the Inservice Testing Program.

Action Item d - Update

A procedure has been developed and approved that includes explicit acceptance criteria for torque and torque bypass switches.

Attachment I to this submittal contains a revised simplified drawing of KNPP's High Head Safety Injection System and should be used in place of the drawing contained in Reference 2. The valve SI-9B is a normally open valve but was inadvertently shown as locked open. This valve is not included in the scope of IEB 85-03. This submittal was delayed as agreed to by Mr. Greenman of NRC Region III staff. The extension was requested in order to allow my staff to perform a more comprehensive review.

Sincerely,



D. C. Hintz
Vice President - Nuclear Power

DJM/jms

Mr. J. G. Keppler
September 8, 1986
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cc - Mr. G. E. Lear, US NRC
Mr. Robert Nelson, US NRC
Director, Office of I&E, US NRC

Subscribed and Sworn to
Before Me This 8th Day
of September 1986

Jeanne M. Stein
Notary Public, State of Wisconsin

My Commission Expires:
June 28, 1987

Attachment I

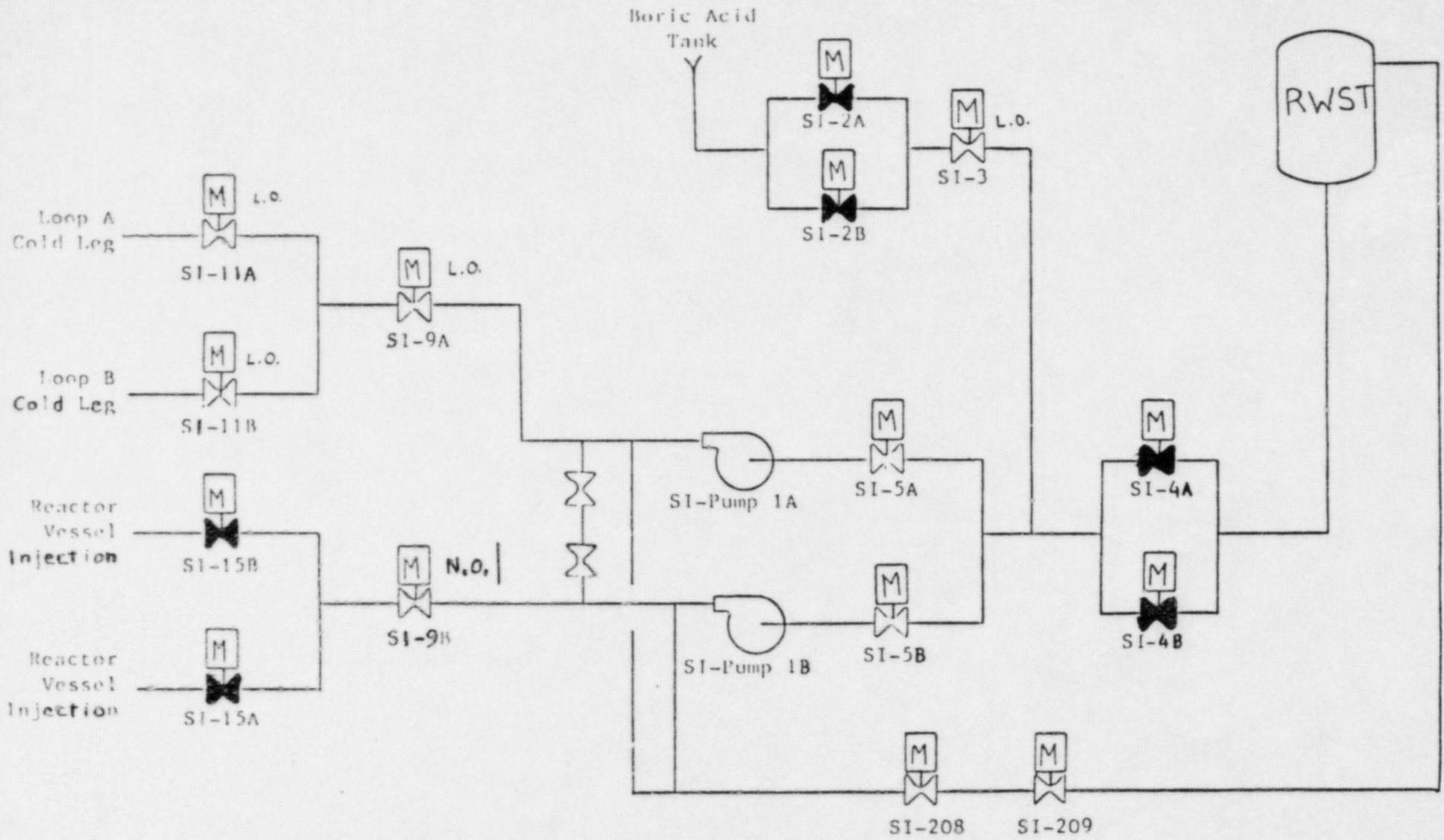
Letter from D. C. Hintz (WPSC) to J. G. Keppler (NRC)

Dated September 8, 1986

Kewaunee Nuclear Power Plant
Wisconsin Public Service Corporation

KNPP Safety Injection System
(Rev. 1)

Mr. J. G. Keppler
September 8, 1986



NOTE: This simplified drawing shows major flow paths and locations of motor operated valves contained in Table 1.

Legend

- L.O. - Locked Open
- M - Motor Operation
- ⊗ - Normally Closed
- ⊘ - Normally Open