

central file

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NORTHERN STATES POWER COMPANY

MINNEAPOLIS, MINNESOTA 55401

December 7, 1979

Mr. James G. Keppler  
Director - Region III  
Office of Inspection and Enforcement  
United States Nuclear Regulatory Commission  
799 Roosevelt Road  
Glen Ellyn, Illinois 60137

Dear Mr. Keppler:

MONTICELLO NUCLEAR GENERATING PLANT  
Docket No. 50-263 License No. DPR-22

The following information is submitted in response to IE Bulletin 79-02, Revision 2:

Item 5 of the Bulletin requires a review to determine the extent that expansion anchor bolts were used to attach piping supports in Seismic Category 1 Systems to concrete block (masonry) walls. Results of this review are shown in the table below --

<u>System</u>	<u>No. of Supports</u>	<u>CEB Type</u>	<u>Line Size</u>	<u>Accessible</u>
RHR	1	Shell	2"	Yes
Diesel Generator Fuel Supply	1	Shell	1"	Yes
Diesel Generator Fuel Supply	1	Shell	2"	Yes

Bechtel Power Corporation has analyzed these lines and has found that failure of the identified supports will not compromise the structural integrity of the respective systems. Therefore, it is not necessary to provide a detailed evaluation of the capability of the supports and walls. There are no supports for Seismic Category 1 lines 2 1/2 inches in diameter and larger attached to concrete block walls. Block walls in inaccessible areas will be inspected during the February, 1980, refueling outage to determine if small bore piping supports are attached. Expansion anchor bolts associated with the RHR system support identified in the table were tested. One bolt passed the tension test and one bolt failed the tension test.

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With respect to Item 6 of the Bulletin, it has been verified that pipe supports with expansion anchor bolts using structural steel shapes instead of base plates were included in Bulletin actions.

With respect to Item 7 of the Bulletin, sampling inspection and testing of expansion anchor bolts in all identified, accessible, Seismic Category 1 piping system supports was completed on November 14, 1979. Calculation of bolt design loads and factors of safety in all Seismic Category 1 piping system 2 1/2 inches in diameter and larger was completed on September 9, 1979. Sampling inspection and testing of expansion anchor bolts in inaccessible Seismic Category 1 piping systems will be completed by the end of the refueling outage scheduled for February, 1980.

Item 2 of the Bulletin states that Bulletin factors of safety were intended for the maximum support load including the SSE. Original plant design criteria were used in the current review to calculate factors of safety.

Item 4 of the Bulletin requires licensees that have not verified anchor bolt preload to submit additional information which demonstrates the effects of preload on the anchor bolt ultimate capacity under dynamic loading. Monticello's July 6, 1979, response to IE Bulletin 79-02, Revision 1, provided the required information.

With respect to Item 4 of the Bulletin, Bechtel Power Corporation reviewed the chart analysis method used in the design of piping systems 2 inches in diameter or less. Results of this review indicate that this method of analysis is highly conservative. Inspection and testing of expansion bolts in large bore systems has not revealed deficiencies which compromise the structural integrity of these systems. It is therefore believed that inspection and testing of expansion anchor bolts is not required in piping systems 2 inches in diameter and less that were designed to chart analysis methods.

If additional information is required, please communicate directly with plant management.

Yours very truly,



L. J. Wachter  
Vice President - Power Production  
and System Operation

cc: Mr. G. Charnoff  
NRC Office of Inspection and Enforcement  
Washington, D.C.