Docket No. 50-263

MAR 3 1981

Mr. L. O. Mayer, Manager
Nuclear Support Services
Northern States Power Company
414 Nicollet Mall - 8th Floor
Minneapolis, Minnesota 55401

Dear Mr. Mayer:

We have reviewed your response to IE Bulletin 80-11 (Masonry Wall Design) and have identified the need for additional information as indicated in the enclosure to this letter. In order for us to complete our review of this issue for the Monticello facility, please provide the additional information requested in the enclosure within the next 60 days.

Sincerely,

Original Signed by
T. A. Ippolito

Thomas A. Ippolito, Chief
Operating Reactors Branch #2
Division of Licensing

Enclosure: As stated

cc w/enclosure
See next page

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

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Mr. L. O. Mayer
Northern States Power Company

cc:

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Mr. Steve Gadler
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St. Paul, Minnesota 55108

ENCLOSURE

REQUEST FOR ADDITIONAL INFORMATION

STRUCTURAL ENGINEERING BRANCH

MONTICELLO NUCLEAR GENERATING PLANT

IE BULLETIN 80-11, DOCKET No. 50-263 License No. DPR-22

1. Discuss post construction inspections performed to determine if voids and/or separation of aggragate occurred in grout fill.

2. In reinforced masonry walls:

   a. Discuss how the reinforcing steel was anchored to the floor, ceilings, walls, etc.

   b. Indicate whether or not the anchoring method used is capable of fully developing the reinforcing steel strength. Quantify the tensile strength developed in the reinforcing steel by the anchoring method used.

3. Under the factored load conditions the value R, (pipe reactions during normal operating or shutdown conditions) was included for the SSE condition but not for the tornado wind condition. Explain and justify the exclusion of pipe reactions during the tornado wind condition.

4. The loads T, W and W'(loads due to thermal effects, design basis wind and tornado wind respectively) were considered to be zero. Justify the use of a zero value for loads generated by tornado wind.

5. Explain and justify the one third increase in allowable stresses under service load conditions, permitted for walls subjected to thermal effects.

6. In the analysis of masonry walls the maximum moment was determined by applying a uniform seismic load to a "beam strip". Indicate whether other loads which may contribute to the maximum moment were included.

7. Are bending moments due to interstory drift combined with the maximum moment due to seismic and piping/equipment loads in the analysis of masonry walls?

8. If the imposed interstory displacement exceeds the permissable displacements, will the wall be considered to have failed the evaluation criteia?

9. In the analyses using plate or two way action explain and justify the general application of the following expressions:

$$M_1 = 0.4P \text{ and } M_1 = 1.2P.$$

10. In Table 1 and 2 the maximum allowable compressive stress for the factored load condition is nearly twice the ultimate strength, f'm, of the masonry units used. Explain and justify the values used in Tables 1 and 2.