

APR 1 1974

Docket No. 50-263

Northern States Power Company
ATTN: Mr. L. O. Mayer, Director of
Nuclear Support Services
414 Nicollet Mall
Minneapolis, Minnesota 55401

Gentlemen:

In a letter dated October 17, 1973, you submitted information concerning the extent and consequences of possible inverted poison tubes in the control blades of the Monticello reactor. We have reviewed your submittal along with the associated General Electric generic submittal dated October 8, 1973, and have concluded that without additional supporting evidence the assumption of a homogeneous defect rate of 5% is not justified. In addition, relatively small groupings of defective blades can produce the maximum undesirable effects. Therefore, to maintain the current safety margin requirements until an inspection of the rods is performed, we are requiring that the following action be implemented within 15 days after receipt of this letter.

1. Subtract a value of 0.2% delta k from the current allowable insequence control rod reactivity worth.
2. Add a value of 10 psi to the maximum pressure calculated for the safety valve sizing pressurization transient and confirm that adequate margin exists.
3. Establish a procedure to report any observed reactivity anomaly greater than 0.5% to the AEC within 10 days of the observation.

It is important that uncertainties associated with the possible presence of defective control blades be either significantly reduced or eliminated as soon as practicable. You should, therefore, inspect a homogeneous sampling of about 50% or more of the control rods during the next refueling outage and complete the inspection of the entire core within the next two refueling outages.

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If the calculated potential shutdown margin loss (assuming full settling in all the observed inverted poison tubes) extrapolated to include uninspected rods is less than 0.5% delta k, add the calculated value to 0.25% delta k to obtain the minimum shutdown margin requirement for the following fuel cycle. You may reduce the minimum shutdown margin requirements by the calculated reactivity uncertainty removed by the replacement of defective blades.

If the results of the inspection yield a potential equivalent full-core shutdown margin loss greater than 0.5% delta k, inspection results should be submitted to the AEC for review before the end of the outage and some amount of blade replacement may be required.

Based upon the inspection results and any blade replacements, subsequent restrictions on insequence control rod reactivity worths and pressure margins will be adjusted to reflect known core conditions.

In the interim, we strongly encourage the performance of an inservice inspection of control rods during any shutdown of significant duration before your next refueling outage.

Sincerely,

Original Signed by
D. J. Skovholt

Donald J. Skovholt
Assistant Director for
Operating Reactors
Directorate of Licensing

cc: See next page

OFFICE ➤ X7403	L:ORB #1 JLSapir <i>JLS</i>	L:ORB #2 JJShea <i>JJS</i>	L:ORB #2 DLXiemann <i>DLX</i>	L:OR DJSkovholt <i>DJS</i>		<i>Rg</i>
SURNAME ➤	3/22/74	3/25/74	3/25/74	3/17/74		
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