Regulatory File Cy.

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NORTHERN STATES POWER COMPANY
Minneapolis, Minnesota 55401

July 26, 1973

Mr. J. F. O'Leary, Director
Directorate of Licensing
United States Atomic Energy Commission
Washington, D. C. 20545

Dear Mr. O'Leary:

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

Inoperability of a Primary Containment Valve T-Ring Seal

A condition occurred at the Monticello Nuclear Generating Plant recently which we are reporting to your office in accordance with Section 6.7.B.1, Abnormal Occurrence Reports, of the Technical Specifications, of Provisional Operating License DPR-22.

On July 18, 1973, during the performance of the routine monthly external inspection of the suppression chamber, the T-ring seal on the air operated primary containment outboard purge/vent valve (AO 2387) was found partially depressurized. This valve is of the butterfly type design with an inflatable resilient seal for positive valve disc seating. The "as found" seal pressure was 45 psig in lieu of the required nominal 100 psig. Examination of the valve on July 18th, revealed that the flow control valve in the air line to the T-ring seal chamber was fully closed. The flow control valve was opened a tenth of a turn and the T-ring seal inflated to the proper pressure.

The flow control valve restricts air flow to the seal chamber upon disc closing. To ensure that disc seating occurs prior to seal inflation this restriction delays for a few seconds the pressure build-up within the seal chamber. A subsequent investigation revealed that the locking set screw for the flow control valve vernier adjustment was loose and that a fitting connection on the seal chamber was leaking. It is believed that the flow control valve vernier moved to the closed position by means of line vibration and the seal chamber subsequently depressurized via the loose fitting connection.

Discussions with the seal system vendor indicated that the flow control valve need not be highly restricted if the butterfly valve is not normally extensively cycled. In this regard, the flow control valve was opened further on July 24th to provide a complete half turn of opening and it was locked in this position. Functional testing of the valve following adjustments and tightening of fittings demonstrated free operation of the valve and proper inflation of the T-ring seal.

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All primary containment isolation valves of similar manufacture are currently being inspected for loose set screws and leaking fittings.

This occurrence did not affect safe operation since primary containment isolation capability was provided by the inboard purge/vent isolation valves.

Two previous T-ring seal inflation malfunctions have occurred at Monticello. Those occurrences involved linkage adjustments and mechanical interference on the main valve operator. It is felt that routine inspection of these valves is adequately serving to identify problem areas and assuring T-ring pressurization.

Yours very truly,

L O Mayer

L. O. Mayer, PE
Director of Nuclear Support Services

LOM/kik

cc: B H Grier
G Charnoff
Minnesota Pollution Control Agency, ATTN: Ken Dzugan