

AEC DISTRIBUTION FOR PART 50 DOCKET MATERIAL
(TEMPORARY FORM)

CONTROL NO: 622

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|--|--|----------------------|---------------------|------------------------------------|------|-----|-------|
| FROM: Northern States Power Company Minneapolis, Minn. 55401 L. O. Mayer | | DATE OF DOC: 1-22-73 | DATE REC'D: 1-26-73 | LTR: X | MEMO | RPT | OTHER |
| TO: Mr. Giambusso | | ORIG: 1 signed | CC: OTHER | SENT AEC PDR X SENT LOCAL PDR X | | | |
| CLASS: <u>U</u> PROP INFO | | INPUT | NO CYS REC'D: 40 | DOCKET NO: 50-263 | | | |

DESCRIPTION:

Ltr furnishing supplement to report of Main Steam Isolation Valve Performance dtd 12-28-72.....
W/Attachment - Summary of MSIV Spool Valve Problems.

ENCLOSURES:

Do Not Remove
ACKNOWLEDGED

PLANT NAMES:

FOR ACTION/INFORMATION

1-26-73 AB

| | | | |
|------------------------|---------------------------|---------------------------|----------------------------|
| BUTLER(L) W/ Copies | SCHWENGER(L) W/ Copies | SCHEMEL(L) W/ Copies | KNIGHTON(E) W/ Copies |
| CLARK(L) W/ Copies | STOLZ(L) W/ Copies | ZIEMANN(L) W/ 9 Copies | YOUNGBLOOD(E) W/ Copies |
| GOLLER(L) W/ Copies | VASSALLO(L) W/ Copies | CHITWOOD(FM) W/ Copies | REGAN(E) W/ Copies |
| KNIEL(L) W/ Copies | H. DENTON W/ Copies | DICKER(E) W/ Copies | |

INTERNAL DISTRIBUTION

| | | | | |
|---|---|--|--|--|
| <u>REG FILE</u> ✓ AEC-PDR ✓ OGC, ROOM P-506A ✓ MUNIZING/STAFF CASE GIAMBUSSO ✓ BOYD-L(BWR) ✓ DEYOUNG-L(PWR) ✓ SKOVHOLT-L P. COLLINS | TECH REVIEW HENDRIE SCHROEDER ✓ MACCARY ✓ KNIGHT(●) ✓ PAWLICKI ✓ SHAO ✓ KNUTH ✓ STELLO ✓ MOORE ✓ HOUSTON ✓ TEDESCO ✓ LONG ✓ LAINAS ✓ BENAROYA | ✓ VOLLMER DENTON GRIMES GAMMILL KASTNER BALLARD SPANGLER ENVIRO MULLER DICKER KNIGHTON YOUNGBLOOD PROJ LEADER REGAN | HARLESS F & M SMILEY NUSSBAUMER LIC ASST. SERVICE L MASON L WILSON L MAIGRET L SMITH L GEARIN L DIGGS L TEETS L LEE L | WADE E SHAFFER F & M BROWN E G. WILLIAMS E E. GOULBOURNE L A/T IND BRATTMAN SALTZMAN PLANS MCDONALD DUBE INFO C. MILES |
|---|---|--|--|--|

EXTERNAL DISTRIBUTION

| | | |
|--|--------------------------|-------------------------|
| ✓ 1-LOCAL PDR Minneapolis, Minn. | (1)(5)(9)-NATIONAL LAB'S | 1-PDR-SAN/LA/NY |
| ✓ 1-DTIE(ABERNATHY) | 1-R. CARROLL-OC, GT-B227 | 1-GERALD LELLOUCHE |
| ✓ 1-NSIC(BUCHANAN) | 1-R. CATLIN, E-256-GT | BROOKHAVEN NAT. LAB |
| 1-ASLB-YORE/SAYRE | 1-CONSULANT'S | 1-AGMED(WALTER KOESTER, |
| WOODWARD/H. ST. | NEWMARK/BLUME/AGABIAN | Rm C-427, GT) |
| ✓ 16-CYS ACRS NOTED SENT TO LIC ASST. | | 1-RD...MULLER...F-309GT |
| R. DIGGS ON 1-26-73 | | |

Regulatory

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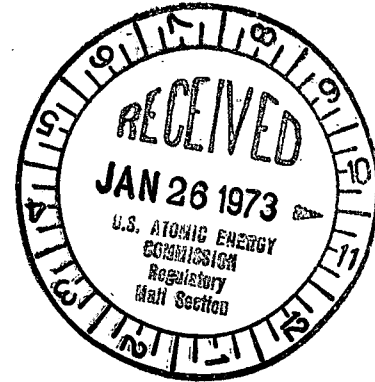
NSP

NORTHERN STATES POWER COMPANY

MINNEAPOLIS, MINNESOTA 55401

January 22, 1973

Mr. A Giambusso
Deputy Director for Reactor Projects
Directorate of Licensing
United States Atomic Energy Commission
Washington, D C 20545



Dear Mr. Giambusso

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

Supplement to Report of Main Steam Isolation
Valve Performance Dated December 28, 1972

During the December maintenance outage at the Monticello Nuclear Generating Plant several problems were experienced in the operation of main steam isolation valve (MSIV) air operator spool valves. Our initial "Report of Main Steam Isolation Valve Performance" did not address itself to these problems. A summary of these and similar previous experiences is attached for your information. Except for one instance of slow closure of MSIV 2-80B on November 13, 1971, (reported to AEC-DL on November 26, 1971), these malfunctions were either "safe" failures where the MSIV tended to go or remain closed, or they occurred following maintenance work and were corrected prior to returning to operation.

Although surveillance tests performed during plant operation have never resulted in a failure of an MSIV to close, the continuing recurrence of spool valve malfunctions indicates a need for improvement. Except for one problem associated with a defective O-ring, every case involved sticking of the spool. The small clearances in the spool valve make it particularly sensitive to foreign material, mechanical distortion, and temperature changes. Investigation of modifications to improve spool valve reliability and reduce the potential for generation and introduction of foreign material is in progress.

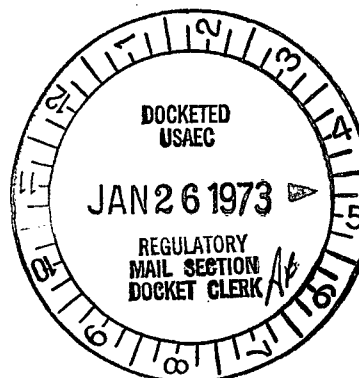
Yours very truly,

L. O. Mayer

L. O. Mayer, P.E.

Director of Nuclear Support Services

cc: B H Grier
G Charnoff
Minnesota Pollution Control Agency
Attn. Ken Dzegan



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per

SUMMARY OF MSIV SPOOL VALVE* PROBLEMS

| <u>Date</u> | <u>MSIV 2-</u> | <u>Description</u> | <u>Correction</u> |
|------------------------|----------------|--|--|
| 11-13-71 | 80B | Improper operation of main spool valve caused slow MSIV closure during routine surveillance test conducted during maintenance outage. | Replaced main spool valve. |
| 1-22-72 | 86D | MSIV would not close properly for exercise test performed subsequent to valve maintenance during shutdown. | Replaced test spool valve. |
| 3-11-72 & 4-1-72 | 80B | MSIV continued to close for several seconds after release of test pushbutton during weekly exercise test with plant in operation. | No immediate action. Failure in safe direction. Also, test spool failure does not affect ability to close MSIV from handswitch or automatic signal. During subsequent exercise tests, valve performed properly. Test spool valve replaced during shutdown 5-13-72. |
| 5-13-72 | 80B | During plant shutdown, a function test was performed following maintenance work to replace the test spool valve. The MSIV failed to close. | Replaced main valve spool. |
| 10-22-72 | 80D | MSIV continued to close after release of test pushbutton during monthly test to verify actuation of MSIV closure scram relays. While performing the test with the plant in operation, the MSIV went fully closed and then reopened. | No immediate action. Failure in safe direction. Also, test spool failure does not affect ability to close MSIV from handswitch or automatic signal. Valve performed properly during subsequent exercise tests. Cleaned test spool during outage on 12-16-72. |
| 12-17-72 | 86C | While conducting timing tests following stroke time adjustments during a maintenance outage, MSIV would not reopen. Found air leakage from the test spool valve sufficient to prevent opening MISV. Leakage caused by faulty O-ring. | Replaced test spool and sleeve assemblies, including O-rings. |

Summary of MSIV Spool Valve* Problems
Page 2

| <u>Date</u> | <u>MSIV 2-</u> | <u>Description</u> | <u>Correction</u> |
|-------------|-----------------|---|---|
| 12-18-72 | 80B & 86D | At the beginning of plant startup these two MSIV's would not open. | Cleaned main and test spools on 86D. Cleaned test spool and replaced main spool on 80B. |
| 12-21-72 | 86D | During a plant startup this MSIV initially failed to open. Subsequent attempts to open and exercise it were successful. | None |
| 12-27-72 | 86C | MSIV continued to close after release of test pushbutton during weekly exercise test with plant in operation. MSIV went fully closed. | Replaced test spool. |

* Numatics Inc., Numatrol Controls Division, Highland Michigan No. D91746U
1 1/2" HPTF Porting Pilot Operated Spring Return 2-position/4-way valve