AEC DISTRIBUTION FOR PART 50 DOCKET MATERIAL
(TEMPORARY FORM)

CONTROL NO: 1329

FILE:

FROM:	DATE OF DOC	DATE REC'D	LTR	MEMO	RPT	OTHER
Northern States Power Company Minneapolis, Minnesota 55401 L. O. Mayer	2-12-74	2-19-74	X			

TO:	ORIG	CC	OTHER	
J. F. O'Leary	No Orig			SENT AEC PDR X SENT LOCAL PDR X

CLASS	UNCLASS	PROP INFO	INPUT	NO CYS REC'D	DOCKET NO:
	XXXX			40	50-263

DESCRIPTION:
Ltr reporting abnormal occurrence on 2-3-74, regarding the failure of Torus Cooling Injection valve MO-2008.....

ENCLOSURES:

DO NOT REMOVE

ACKNOWLEDGED

PLANT NAME: Monticello

FOR ACTION/INFORMATION 2-19-74 GC

BUTLER(L)	SCHWENCER(L)	✓ZIEMANN(L)	REGAN(E)
W/ Copies	W/ Copies	W/ 7 Copies	W/ Copies
CLARK(L)	STOLZ(L)	DICKER(E)	
W/ Copies	W/ Copies	W/ Copies	W/ Copies
GOLLER(L)	VASSALLO(L)	KNIGHTON(E)	
W/ Copies	W/ Copies	W/ Copies	W/ Copies
KNIEL(L)	SCHEMEL(L)	YOUNGBLOOD(E)	
W/ Copies	W/ Copies	W/ Copies	W/ Copies

INTERNAL DISTRIBUTION

~~✓REG FILE~~	TECH REVIEW	DENTON	LIC ASST	A/T IND
✓AEC PDR	✓HENDRIE	GRIMES	✓DIGGS (L)	BRAITMAN
✓OGC, ROOM P-506A	SCHROEDER	GAMMILL	GEARIN (L)	SALTZMAN
✓MUNTZING/STAFF	✓MACCARY	KASTNER	GOULBOURNE (L)	B. HURT
✓CASE	✓KNIGHT	BALLARD	LEE (L)	PLANS
GIAMBUSSO	✓PAWLICKI	SPANGLER	MAIGRET (L)	MCDONALD
BOYD	✓SHAO		SERVICE (L)	DUBE w/Input
MOORE (L)(BWR)	✓STELLO	ENVIRO	SHEPPARD (E)	INFO
DEYOUNG(L)(PWR)	✓HOUSTON	MULLER	SMITH (L)	C. MILES
✓SKOVHOLT (L)	✓NOVAK	DICKER	TEETS (L)	✓B. KING (RO)
P. COLLINS	✓ROSS	KNIGHTON	WADE (E)	
DENISE	✓IPPOLITO	YOUNGBLOOD	WILLIAMS (E)	
REG OPR	✓TEDESCO	REGAN	WILSON (L)	
✓FILE & REGION(3)	✓LONG	PROJECT LDR	S. REED (L)	
✓MORRIS	✓LAINAS			
✓STEELE	✓BENAROYA	HARLESS		
	✓VOLLMER			

EXTERNAL DISTRIBUTION

~~1 - LOCAL PDR Minneapolis, Minn.~~

1 - DTIE(ABERNATHY)
1 - NSIC(BUCHANAN)
1 - ASLB(YORE/SAYRE/ WOODARD/"H" ST.
16 - CYS ACRS ~~HOLDING~~ SENT TO LIC. ASST. 2-19-74 Diggs

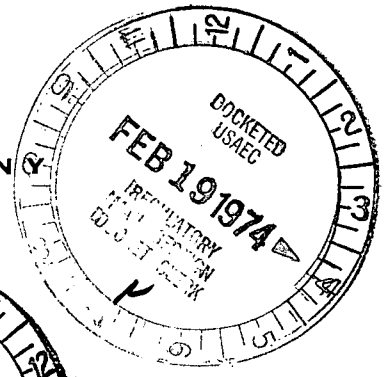
(1)(2)(10)-NATIONAL LAB'S
1-ASLBP(E/W Bldg,Rm 529)
1-W. PENNINGTON, Rm E-201 GT
1-CONSULTANT'S NEWMARK/BLUME/AGBABIAN
1-GERALD ULRIKSON...ORNL

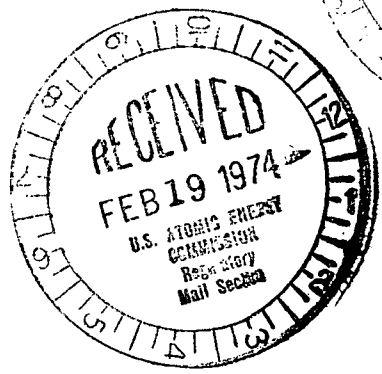
1-PDR-SAN/LA/NY
1-GERALD LELLOUCHE BROOKHAVEN NAT. LAB
1-AGMED(Ruth Gussman) RM-B-127, GT.
1-RD..MULLER..F-309 GT

Regulatory Docket File

NSP

NORTHERN STATES POWER COMPANY
Minneapolis, Minnesota 55401





February 12, 1974

Mr. J. F. O'Leary, Director
Directorate of Licensing
Office of Regulation
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

Failure of Torus Cooling Injection Valve, MO-2008

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

On February 3, 1973, during routine transfer of torus water to radwaste, the "A" Residual Heat Removal (RHR) torus cooling injection valve operator (MO-2008) motor failed due to stalled rotor current overheating the windings.

Investigation revealed that the set screws which fasten the stem clamp to the valve stem had loosened. This allowed the valve stem to rotate. The stem rotation misaligned the valve limit switches such that open position indication was not received and the opening control signal was not interrupted when the valve was in the full open position. This condition permitted the control room operator to stall the motor in attempts to fully open the valve. The resultant locked rotor current and subsequent insulation failure led to the motor failure. Since this valve performs a safety function, the redundant electrical protection features, such as thermal overloads and fuses, are deliberately sized so as to allow motor failure in efforts to operate the valve. The motor was replaced, the limit switches were reset, the stem clamp was repositioned and the set screw threads were staked. The valve was tested and found to operate satisfactorily.

A similar failure of this valve motor occurred on October 28, 1973, during a routine surveillance test. The cause of that failure also involved improper limit switch alignment. Neither occurrence affected safe operation, since MO-2006, which is located upstream of MO-2008, was operable and provides automatic isolation capability. It is noted that MO-2006 is a gate valve whose design does not incorporate a stem clamp. Following this occurrence, all accessible motor operated valves on ECCS subsystems were inspected to determine if any other stem

clamps had come loose. All stem clamps were found to be properly positioned and firmly seated. Other motor operated valves on ECCS subsystems which were inaccessible will be inspected at the first opportunity. The stem clamp set screw threads for similar ECCS motor operated valves will be staked. Maintenance procedures for these valves will include a verification of proper stem clamp position and proper set screw tightness.

Very truly yours,

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

LOM/mmm

cc: JG Keppler
G Charnoff
Minnesota Pollution Control Agency
Attn: E A Pryzina