

AEC DISTRIBUTION FOR PART 50 DOCKET MATER.
(TEMPORARY FORM)

CONTROL NO: 5087

FILE: MSC

FROM: Northern States Power Company Minneapolis, Minnesota 55401 L. O. Mayer			DATE OF DOC 5-31-74	DATE REC'D 6-7-74	LTR X	MEMO	RPT	OTHER
TO: J. F. O'Leary			ORIG 1 signed	CC	OTHER	SENT AEC PDR <u>X</u> SENT LOCAL PDR <u>X</u>		
CLASS	UNCLASS XXX	PROP INFO	INPUT	NO CYS REC'D 40		DOCKET NO: 50-263		

DESCRIPTION:
Ltr re their 4-15-74 ltr, furnishing addl info concerning cracked studs on recirculation pumps.....

9105030429 740331
PDR ADDCK 05000263
P PDR

PLANT NAME: Monticello

ENCLOSURES:

ACKNOWLEDGED
DO NOT REMOVE

FOR ACTION/INFORMATION

6-7-74 GC

BUTLER(L) W/ Copies	SCHWENCER(L) W/ Copies	<input checked="" type="checkbox"/> NIEMANN(L) W/ 7 Copies	REGAN(E) W/ Copies
CLARK(L) W/ Copies	STOLZ(L) W/ Copies	DICKER(E) W/ Copies	W/ Copies
PARR(L) W/ Copies	VASSALLO(L) W/ Copies	KNIGHTON(E) W/ Copies	W/ Copies
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INTERNAL DISTRIBUTION

<input checked="" type="checkbox"/> REG FILE	<u>TECH REVIEW</u>	DENTON	<u>LIC ASST</u>	<u>A/T IND</u>
<input checked="" type="checkbox"/> AEC PDR	<input checked="" type="checkbox"/> HENDRIE	GRIMES		BRAITMAN
<input checked="" type="checkbox"/> OGC, ROOM P-506A	SCHROEDER	GAMMILL	<input checked="" type="checkbox"/> DIGGS (L)	SALTZMAN
<input checked="" type="checkbox"/> MUNTZING/STAFF	<input checked="" type="checkbox"/> MACCARY	KASTNER	GEARIN (L)	B. HURT
<input checked="" type="checkbox"/> CASE	<input checked="" type="checkbox"/> KNIGHT	BALLARD	GOULBOURNE (L)	<u>PLANS</u>
GIAMBUSSO	<input checked="" type="checkbox"/> PAWLICKI	SPANGLER	LEE (L)	MCDONALD
BOYD	<input checked="" type="checkbox"/> SHAO		MAIGPET (L)	DUBE w/Input
MOORE (L)(EWR)	<input checked="" type="checkbox"/> STELLO	<u>ENVIRO</u>	REED (E)	<u>INFO</u>
DEYOUNG(L)(PWR)	<input checked="" type="checkbox"/> HOUSTON	MULLER	SERVICE (L)	C. MILES
SKOVHOLT (L)	<input checked="" type="checkbox"/> NOVAK	DICKER	SHEPPARD (L)	<input checked="" type="checkbox"/> KLECKER
<input checked="" type="checkbox"/> COLLIER(L)	<input checked="" type="checkbox"/> ROSS	KNIGHTON	SLATER (E)	<input checked="" type="checkbox"/> EISENHUT
P. COLLINS	<input checked="" type="checkbox"/> PPOPOLITO	YOUNGBLOOD	SMITH (L)	
DENISE	<input checked="" type="checkbox"/> REDESCO	REGAN	TEETS (L)	<u>AOR FILE</u>
<input checked="" type="checkbox"/> REG OPR	<input checked="" type="checkbox"/> LONG	PROJECT LDR	WADE (E)	<input checked="" type="checkbox"/> D. THOMPSON (2)
<input checked="" type="checkbox"/> FILE & REGION(3)	<input checked="" type="checkbox"/> ZAINAS		WILLIAMS (F)	
<input checked="" type="checkbox"/> MORRIS	<input checked="" type="checkbox"/> BENAROYA	HARLESS	WILSON (L)	
<input checked="" type="checkbox"/> STEELE	<input checked="" type="checkbox"/> VOLLMER			

EXTERNAL DISTRIBUTION

<input checked="" type="checkbox"/> - LOCAL PDR <u>Minneapolis, Minn.</u>	(1)(2X10)-NATIONAL LAB'S	1-PDR-SAN/LA/NY
<input checked="" type="checkbox"/> - TIC (ABERNATHY)	1-ASLBP(E/W Bldg, Rm 529)	1-GERALD LELLOUCHE
<input checked="" type="checkbox"/> - NSIC(BUCHANAN)	1-W. PENNINGTON, Rm E-201 GT	BROOKHAVEN NAT. LAB
1 - ASLB	1-CONSULTANT'S	1-AGMED(Ruth Gussman)
1 - P. R. DAVIS (AEROJET NUCLEAR)	NEWARK/BLUME/AGBABIAN	RM-B-127, GT.
<input checked="" type="checkbox"/> 16 - CYS ACRS XXXXXX SENT TO LIC. ASST.	1-GERALD ULRIKSON...ORNL	1-RD..MULLER..F-309 GT
6-7-74 DIGGS	1-B & M SWINEBROAD, Rm E-201 GT	

Regulatory Docket File

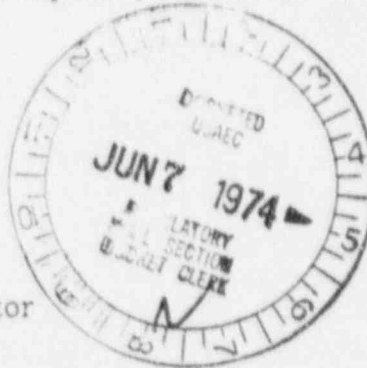
NSP

NORTHERN STATES POWER COMPANY

Minneapolis, Minnesota 55401

May 31, 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

Additional Information Concerning Cracked Studs on Recirculation Pumps

In our April 15, 1974 letter it was reported that investigation into the cause of the cracked recirculation pump stuffing box holddown cover studs and possible corrective actions had not been completed. This letter reports the resolution of the problem.

Metallurgical examination revealed that the major factor contributing to the stud failure was that the studs were improperly heat treated causing them to be susceptible to stress corrosion cracking. The stress corrosion cracking mechanism was accelerated by a concentration cell effect of an elongation pin cavity and, possibly, by the presence of fluoride containing O-rings in the pump gland seal assembly.

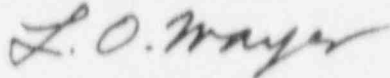
To prevent recurrence, the following steps were taken:

- a. The elongation pin cavity of the spare studs used in No. 12 Recirculation Pump was seal welded to eliminate the possibility of the cavity acting as a corrosion concentration cell.
- b. New studs used in No. 11 Recirculation Pump were purchased without the elongation pin cavity.
- c. Hardness tests were performed on the newly purchased studs to verify that they had been properly heat treated.
- d. Previously installed O-rings were replaced with halogen free Fluoro-Ring O-rings.

5087

The recirculation pump main studs were ultrasonically examined and found satisfactory.

Very truly yours,



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

LOM/mm

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