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FROM Northern States Power Co. Minneapolis, Minn L. O. Mayer			DATE OF DOC 11-25-74		DATE REC'D 11-29-74		LTR xxxx	TWX	RPT	OTHER	
TO: Mr. J.F. O'Leary			ORIG 1-signed		CC OTHER		SENT AEC PDR xxxxxxx		SENT LOCAL PDR xxxxxxx		
CLASS	UNCLASS xxxxxxx	PROP INFO	INPUT		NO CYS REC'D 1		DOCKET NO: 50-263				
DESCRIPTION: <u>74-24</u> Ltr Reporting Abnormal Occurrence on 11-15-74 concerning Premature Actuation of Safety / Relief Valve "E" during normal operation						ENCLOSURES: ACKNOWLEDGED DO NOT REMOVE					
PLANT NAME: Monticello											

FOR ACTION/INFORMATION

11-29-74 JGB

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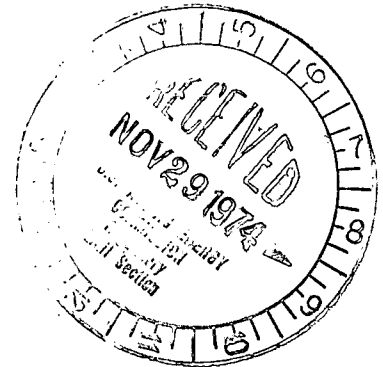
NORTHERN STATES POWER COMPANY

Minneapolis, Minnesota 55401

Mr. J. F. O'Leary, Director
Directorate of Licensing
Office of Regulation
U S Atomic Energy Commission
Washington, D. C. 20545

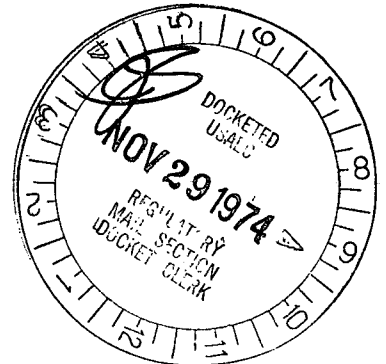
Regulatory

File Cy.



ABNORMAL OCCURRENCE REPORT TO THE AEC
Premature Actuation of Safety/Relief Valve "E"

1. Report Number: AO 263/74-24
- 2a. Report Date: November 25, 1974
- 2b. Occurrence Date: November 15, 1974
3. Facility: Monticello Nuclear Generating Plant (DPR-22)
Monticello, Minnesota 55362
4. Identification of Occurrence:



This report concerns the premature actuation of safety/relief valve "E" during normal power operation.

5. Conditions Prior to Occurrence:

Steady State Power - The plant was at 81% of rated power at the time of the occurrence.

6. Description of Occurrence:

On November 15, 1974, during normal power operation, safety/relief valve "E" prematurely actuated at a reactor pressure of 981 psig. The valve remained open for approximately 6 seconds resulting in a reactor pressure loss of 11 psig. The actuation occurred at a time when the plant was operating with seven safety/relief valves (this is the minimum number of operable safety/relief valves required by the Technical Specifications). Since the cause of the actuation was unknown, the valve could not be considered operable, therefore, the reactor was brought to the cold shutdown condition.

7. Designation of Apparent Cause of Occurrence:

All eight safety/relief valves were bench checked, disassembled and inspected. The "E" valve and three other valves were found to have excessive leakage of the first stage pilot. The remaining four valves were found to be in good condition. The four leaking valves had a

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buildup of foreign material on the pilot seating surfaces and the surfaces were steam cut. The accumulation of foreign material is believed to have caused pilot leakage which eventually become aggravated to the extent that the valve actuated.

The degree of leakage and foreign material buildup correlated with the number of actuations of the first stage pilot valves on steam. During the Spring 1974 refueling outage, five rebuilt and three new valves, including the "E" valve, were installed. The new valves had each been tested on steam by the vendor. The total number of vendor tests performed is not known, however, records indicate at least four actuations of each valve. Two of the new valves and one rebuilt valve also were actuated once following a turbine trip. The new valves were found in worse condition than the rebuilt valve which had actuated on steam only once. None of the four valves which were found in good condition had experienced operation of the first stage pilot on steam.

8. Analysis of the Occurrence:

There was one previous similar malfunction when safety/relief valve "G" was prematurely actuated on November 11, 1974, during a plant startup with reactor pressure at 911 psig. The valve actuated for only 3 seconds then reseated properly. The plant was shutdown, the safety/relief valve was removed, and the plant was returned to normal operation. It is noted that safety/relief valve "G" was also one of the new valves.

Based on the inspections discussed above, it is concluded that all of the safety/relief valves were operable and would have actuated to prevent overpressurization of the reactor vessel if required. This occurrence had no effect on the public health, and safety.

9. Corrective Action:

Seven of the eight safety/relief valves were refurbished under the direction of a vendor representative and reinstalled. The pilot seat of the eighth safety/relief valve was lapped to the extent that insufficient stellite remained on the seat. This valve was not reinstalled pending further repair work.


Results of the investigation discussed above indicate that, unless a valve is actuated on steam, the probability of a spurious actuation is minimal. Increased surveillance of the safety/relief valve discharge temperature has been initiated to provide early detection of deteriorating seat conditions. Means of improving the sensitivity of the leak detection system are being investigated.

10. Failure Data:

Safety Relief Valve "E"
Serial No. 119

Safety Relief Valve "G"
Serial No. 122

Target Rock Model 67F
Pilot Operated Safety Relief
Target Rock Corporation


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

LOM/kik

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



NRC-MONT

Box

0042_0064

Accession

MT9999999999-00362



UNITED STATES
ATOMIC ENERGY COMMISSION
DIRECTORATE OF REGULATORY OPERATIONS
REGION III
799 ROOSEVELT ROAD
GLEN ELLYN, ILLINOIS 60137

TELEPHONE
(312) 858-2660

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C. Incident Notification From: Northern States Power Co., Docket No. 50-263.
(Licensee & Docket No. (or License No.))

Transmittal Date : DEC 3 1974

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NISP

NORTHERN STATE POWER COMPANY
Monticello, Minnesota 55362

November 18, 1974

Mr. J. G. Keppler, Regional Director
Directorate of Regulatory Operations
Region III
750 Roosevelt Road
Glen Ellyn, Illinois 61073

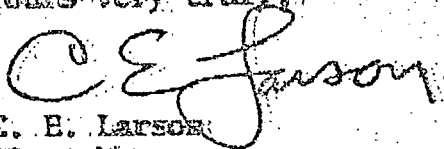
Dear Mr. Keppler:

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

On November 15, 1974, while operating at a steady state 81% power level, reactor relief valve RV 2-71G spuriously actuated. The relief valve reset after approximately 6 seconds.

The reactor was shutdown. A investigation into the cause of the actuation is continuing.

Yours very truly,


C. E. Larson
Plant Manager

CEL/Rik

cc: J. F. O'Leary
G. Charnoff
E. A. Pryzina
(Minnesota Pollution Control Agency)

Copies sent by telecopier to Keppler and O'Leary.