

**AEC DISTRIBUTION FOR PART 50 DOCKET MATERIAL  
(TEMPORARY FORM)**

CONTROL NO: 6140

FILE: A/0

<b>FROM:</b> Northern States Power Company Minneapolis, Minn. 55401 L. O. Mayer		<b>DATE OF DOC</b> 7-2-74	<b>DATE REC'D</b> 7-8-74	<b>LTR</b> X	<b>TWX</b>	<b>RPT</b>	<b>OTHER</b>
<b>TO:</b> J. F. O'Leary		<b>ORIG</b> NONE	<b>CC</b>	<b>OTHER</b>	<b>SENT AEC PDR</b> X		
					<b>SENT LOCAL PDR</b> X		
<b>CLASS</b>	<b>UNCLASS</b> XXX	<b>PROP INFO</b>	<b>INPUT</b>	<b>NO CYS REC'D</b> 40	<b>DOCKET NO:</b> 50-263		

**DESCRIPTION:**

Ltr reporting abnormal occurrence on 6-9-74, regarding the discovery of a single failure mode which could result in inoperability of the recombiner train outlet hydrogen analyzers..

(UE 263/74-2)

**PLANT NAME:** Monticello

**ENCLOSURES:**

**DO NOT REMOVE**

**ACKNOWLEDGED**

FOR ACTION/INFORMATION 7-11-74

BUTLER (L)	SCHWENCER (L)	✓ZIEMANN (L)	REGAN (E)
W/ CYS	W/ CYS	W/ 7 CYS	W/ CYS
CLARK (L)	STOLZ (L)	DICKER (E)	
W/ CYS	W/ CYS	W/ CYS	W/ CYS
W/ CYS	VASSALLO (L)	KNIGHTON (E)	
W/ CYS	W/ CYS	W/ CYS	W/ CYS
KNIEL (L)	PURPLE (L)	YOUNGBLOOD (E)	
W/ CYS	W/ CYS	W/ CYS	W/ CYS

**INTERNAL DISTRIBUTION**

✓ <b>REG FILE</b>	✓ <b>TECH REVIEW</b>	DENTON	LIC ASST	A/T IND
✓AEC PDR	✓HENDRIE	GRIMES	✓DIGGS (L)	BRAITMAN
✓OGC	✓SCHROEDER	GAMMILL	GEARIN (L)	SALTZMAN
✓MUNTZING/STAFF	✓MACCARY	KASTNER	GOULBOURNE (L)	B. HURT
✓CASE	✓KNIGHT	BALLARD	KREUTZER (E)	
GIAMBUSSO	✓PAWLICKI	SPANGLER	LEE (L)	<b>PLANS</b>
BOYD	✓SHAO		MAIGRET (L)	MCDONALD
MOORE (L)(LWR-2)	✓STELLO	✓ <b>ENVIRO</b>	REED (E)	CHAPMAN
DEYOUNG (L)(LWR-1)	✓HOUSTON	MULLER	SERVICE (L)	DUBE w/input
SKOVHOLT (L)	✓NOVAK	DICKER	SHEPPARD (L)	E. COUPE
✓GOLLER (L)	✓ROSS	KNIGHTON	SLATER (E)	
P. COLLINS	✓IPPOLITO	YOUNGBLOOD	SMITH (L)	✓D. THOMPSON (2)
DENISE	✓TEDESCO	REGAN	TEETS (L)	✓KLECKER
✓ <b>REG OPR</b>	✓LONG	PROJECT MGR	WILLIAMS (E)	✓EISENHUT
✓ <b>FILE &amp; REGION (3)</b>	✓LAINAS		WILSON (L)	
✓MORRIS	✓BENAROYA	HARLESS		
✓STEELE	✓VOLLMER			

**EXTERNAL DISTRIBUTION**

✓1 - LOCAL PDR Minneapolis, Minn.	(1)(2)(10)-NATIONAL LABS	1-PDR-SAN/LA/NY
✓1 - TIC (ABERNATHY)	1-ASLBP(E/W Bldg, Rm 529)	1-BROOKHAVEN NAT LAB
✓1 - NSIC (BUCHANAN)	1-W. PENNINGTON, Rm E-201 GT	1-G. ULRIKSON, ORNL
1 - ASLB	1-B&M SWINEBROAD, Rm E-201 GT	1-AGMED (RUTH GUSSMAN)
1 - P. R. DAVIS	1-CONSULTANTS	Rm B-127 GT
✓16 - ACRS SENT TO LIC ASST DIGGS	NEWMARK/BLUME/AGBABIAN	1-RD..MUELLER, Rm F-309
7-11-74		CT

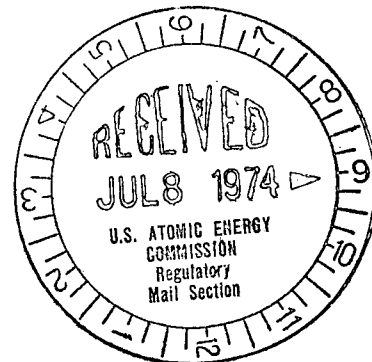


NORTHERN STATES POWER COMPANY

Minneapolis, Minnesota 55401

50-263

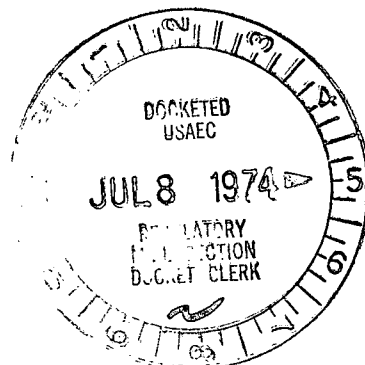
Mr. J F O'Leary, Director  
Directorate of Licensing  
Office of Regulation  
U S Atomic Energy Commission  
Washington, D. C. 20545



UNUSUAL EVENT REPORT TO THE AEC

Recombiner Outlet Hydrogen Analyzer Low Sample Flow Trip

1. Report Number: UE 263/74-2
- 2A. Report Date: July 2, 1974
- 2B. Event Date: June 9, 1974
3. Facility: Monticello Nuclear Generating Plant (DPR-22)  
Monticello, Minnesota 55362
4. Identification of Event:



This report concerns the discovery of a single failure mode which could result in inoperability of the recombiner train outlet hydrogen analyzers.

5. Conditions Prior to the Event:

Routine Startup Operation - Plant startup was in progress with operational testing of the modified off-gas holdup system being conducted. Reactor power was approximately 3% and reactor pressure approximately 300 psig.

6. Description of Event:

On June 9, 1974, a plant startup was in progress with the B recombiner train in operation. While investigating an instrument problem associated with the recombiner train inlet flow control loop, the train was inadvertently tripped. The TRAIN B - OUTLET H<sub>2</sub> CONC HIGH annunciator was then received, however the hydrogen analyzer remote indicators in the control room indicated normal concentration (~1/2% hydrogen). The B recombiner train was then restarted and a test engineer was sent to the recombiner building to check the hydrogen analyzers and determine the cause of the annunciator. The three B recombiner train hydrogen analyzers were found to be tripped on low sample flow (which initiates the OUTLET H<sub>2</sub> CONC HIGH annunciation). The A recombiner train was immediately placed in operation and the B train was shutdown. Subsequent investigation revealed that the low flow shutdown of all three analyzers was caused by an accumulation of moisture in the common sample line.

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7. Designation of Apparent Cause of the Event:

Design - The recombiner train trip logic did not include a trip input from low sample flow shutdown of the hydrogen analyzers. At the time the system was designed, a common low flow trip of all three hydrogen analyzers on a recombiner train was considered to be a highly improbable event.

8. Analysis of Event:

The purpose of the recombiner train outlet hydrogen analyzers is to monitor the hydrogen concentration in the off-gas leaving the recombiner and to trip the recombiner train in the event that high hydrogen concentration (2%) is detected. This action is designed to prevent an explosive hydrogen mixture from reaching the compressed gas storage system. Since the compressed gas storage system had never been placed in operation prior to the event, it did not affect the health and safety of the public.

9. Corrective Action:

The recombiner train trip logic has been modified to include trip inputs from hydrogen analyzer low sample flow. Also, moisture separators have been added to the sample lines to reduce the possibility of water plugging the sample lines.

10. Failure Data:

There were no equipment failures associated with the event.

L O Mayer / DMM

L O Mayer, PE  
Director of Nuclear Support Services

LOM/mmm

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