

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

CONTROL NO: 8510

FILE: \_\_\_\_\_

<b>FROM:</b> Northern States Power Co Minneapolis, MN LO Mayer			<b>DATE OF DOC</b> 8-14-74	<b>DATE REC'D</b> 8-17-74	<b>LTR</b> X	<b>TWX</b>	<b>RPT</b>	<b>OTHER</b>
<b>TO:</b> JF O'Leary			<b>ORIG</b> 1	<b>CC</b> 39	<b>OTHER</b>	<b>SENT AEC PDR</b> XXX <b>SENT LOCAL PDR</b> XXX		
<b>CLASS</b>	<b>UNCLASS</b>	<b>PROP INFO</b>	<b>INPUT</b>	<b>NO CYS REC'D</b>	<b>DOCKET NO:</b>			
	XXX			40	50-263			

**DESCRIPTION:**

Ltr furn info re unusual event #UE 263/74-03 of 7-15-74 re two off gas stack filters which tested at 0% efficiency on 7-15 & 7-17-74....

**ENCLOSURES:**

**ACKNOWLEDGED  
DO NOT REMOVE**

**PLANT NAME:** MONTICELLO

FOR ACTION/INFORMATION 8-17-74 GMC

BUTLER (L)	SCHWENCER (L)	✓ZIEMANN (L)	REGAN (E)
W/ CYS	W/ CYS	W/ 7 CYS	W/ CYS
CLARK (L)	STOLZ (L)	DICKER (E)	LEAR
W/ CYS	W/ CYS	W/ CYS	W/ CYS
FAIR (L)	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**

✓ <u>REG FILE</u>	✓ <u>TECH REVIEW</u>	DENTON	✓ <u>LIC ASST</u>	<u>A/T IND</u>
✓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)	<u>PLANS</u>
BOYD	✓SHAO		MAIGRET (L)	MCDONALD
MOORE (L)(LWR-2)	✓STELLO	<u>ENVIRO</u>	REED (E)	CHAPMAN
DEYOUNG (L)(LWR-1)	✓HOUSTON	<u>MULLER</u>	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
✓ <u>REG OPR</u>	✓LONG	PROJECT MGR	WILLIAMS (E)	✓EISENHUT
FILE & REGION (3)	✓LAINAS		WILSON (L)	
✓MORRIS	✓BENAROYA			
✓STEELE	✓VOLLMER	HARLESS		

**EXTERNAL DISTRIBUTION**

✓1 - LOCAL PDR MINNEAPOLIS, MN	(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
✓5 - ACRS SENT TO LIC ASST DIGGS 8-19-74	NEWMARK/BLUME/ACBABIAN	1-RD..MUELLER, Rm F-306
		GT

# NSP

NORTHERN STATES POWER COMPANY

MINNEAPOLIS, MINNESOTA 55401

## REGULATORY DOCKET FILE COPY

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

### UNUSUAL EVENT REPORT TO THE AEC

Off Gas High Efficiency Particulate Filter Failures

1. Report Number: UE 263/74-03
- 2A. Report Date: August 14, 1974
- 2B. Event Date: July 15, 1974
3. Facility: Monticello Nuclear Generating Plant (DPR-22)  
Monticello, Minnesota 55362
4. Identification of Event:

This report concerns two off gas stack filters which tested at 0% efficiency on July 15, 1974 and July 17, 1974.

5. Conditions Prior to the Event:

Steady State Power - The plant was operating at 88% of rated power.

6. Description of the Event:

On July 15, 1974, demineralized water was added to the loop seals at the off gas stack. Due to a plugged drain line for the 6" off gas piping between the compressed gas storage building and the stack, excess water collected in the line. This created a backpressure sufficient to cause unstable air ejector operation and resulted in moisture reaching the stack off gas filter, as indicated by a stack filter high pressure differential alarm. The standby filter (#11) was then placed in service and the operating filter (#12) was isolated. A loss of condenser vacuum caused by unstable air ejector operation resulted in instability of the condenser hotwell water level. While operating personnel were attempting to manually control hotwell level the hotwell makeup and reject valves were inadvertently opened simultaneously. This resulted in a low suction pressure trip of the reactor feed pumps and a reactor scram from low water level. Later that afternoon, the stack drain line unplugged itself, and the drain collecting tank was emptied three times.

During the evening of July 15, #12 stack filter was replaced with a spare which tested at 99.96% efficiency. Other than being wet, the filter cartridge removed

(over)

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## NORTHERN STATES POWER COMPANY

from #12 filter cell had no apparent damage. The #11 stack filter tested at 0% efficiency. The plant was returned to power operation with #12 filter in service.

The following morning, July 16, 1974, the stack drain line again became plugged as evidenced by oscillation in stack filter differential pressure (up to the alarm point), higher than normal air ejector discharge pressure, and constant water level in the drain collecting tank for the stack. Later that evening, the stack drain line was unplugged by applying a backpressure at the drain tank and the water was drained from the off gas piping.

On July 17, 1974, the #11 stack filter was replaced with a spare which tested at 99.70% efficiency. The #12 stack filter was tested at 0% efficiency. This indicated that moisture had again reached the filter. Plant operation was continued with #11 filter in service.

On July 30, 1974, the filter cartridge removed from filter cell #12 on July 15, 1974, was re-installed after being allowed to dry out for about 10 days. This filter tested at 97% efficiency.

7. Designation of Apparent Cause of the Event:

Equipment Malfunction - The stack filters became wet as a result of flooding of the line between the compressed gas storage building and the stack building after the line to the drain tank plugged.

8. Analysis of the Occurrence:

Although the stack filters were wet and were not effective particulate filters, the total stack release rate remained within the technical specification release limits.

9. Corrective Action:

The off gas stack filters which failed the filter efficiency test were replaced with spare units and tested for satisfactory efficiency. The level in the stack drain tank is being more closely monitored by operating personnel to detect evidence of plugging as soon as it occurs. Techniques for unplugging the drain line have been developed. Additionally, modifications to lessen the probability of plugging the drain line are being investigated.

10. Failure Data:

This series of stack off gas filter failures is the first such event at Monticello Nuclear Generating Plant. The filter cartridges are a special design manufactured by Mine Safety Appliance Company for the Monticello plant.



L O Mayer, PE  
Director of Nuclear Support Services

cc: J G Keppler  
G Charnoff

Minnesota Pollution Control Agency - Attn. E A Zina