



Northern States Power Company

414 Nicollet Mall  
Minneapolis, Minnesota 55401-1927  
Telephone (612) 330-5500

September 30, 1992

Report Required by  
10 CFR Part 50, Section 50.73

U.S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, DC 20555

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

Fire Barrier Declared Inoperable Due to  
Failure of Similar Barriers to Pass Acceptance Tests

The Licensee Event Report for this occurrence is attached. Please contact us if you require further information.

*for Thomas M. Parker*  
Thomas M Parker  
Manager  
Nuclear Support Services

c: Regional Administrator - II, NRC  
Sr Resident Inspector, NRC  
NRR Project Manager, NRC  
State of Minnesota,  
Attn: Kris Sanda

Attachment

050144

9210080085 920930  
PDR ADDCK 05000263  
S PDR

*FE22*  
*11*

## LICENSEE EVENT REPORT (LER)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 500 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20545, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1) Monticello Nuclear Generating Plant										DOCKET NUMBER (2) 0 5 0 0 0 2 6 3				PAGE (3) 1 OF 0 4	
TITLE (4) Fire Barrier Declared Inoperable Due to Failure of Similar Barriers to Pass Acceptance Tests															
EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)						
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAMES				DOCKET NUMBER(S)		
0 6	2 4	9 2	9 2	0 0 8	0 1 0	9 3	0 9	2					0 5 0 0 0		
OPERATING MODE (9) N			THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5 (Check one or more of the following) (11)												
POW. LEVEL (10) 1 0 0			20.402(b)			20.405(c)			50.73(a)(2)(iv)			73.71(b)			
			20.405(a)(1)(i)			50.36(c)(1)			50.73(a)(2)(v)			73.71(c)			
			20.405(a)(1)(iii)			50.36(c)(2)			50.73(a)(2)(vi)			OTHER (Specify in Abstract below and in Text, NRC Form 366A)			
			20.405(a)(1)(iii)			XX 50.73(a)(2)(i)			50.73(a)(2)(viii)(A)						
			20.405(a)(1)(iv)			50.73(a)(2)(ii)			50.73(a)(2)(viii)(B)						
			20.405(a)(1)(v)			50.73(a)(2)(iii)			50.73(a)(2)(ix)						
LICENSEE CONTACT FOR LER (12)															
NAME Mike Hippe, System Engineer										TELEPHONE NUMBER AREA CODE 6 1 2 2 9 5 - 1 3 7 1					
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)															
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC					
SUPPLEMENTAL REPORT EXPECTED (14)												EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE: XX NO															

ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)

Based on information received on June 24 and August 31, 1992 concerning Thermo-Lag 330, two fire barriers were declared inoperable. The cause of this event is the uncertainty about the capability of fire barriers which rely on this material. Technical Specification special reports and responses to NRC Bulletins No. 92-01 and 92-01 Supplement 1 have been submitted to the NRC. The barriers have been visually inspected, a one hour fire patrol has been established. A fire detection system has been installed and surveillance procedures are performed periodically to insure its operability. A Design Change has been initiated to replace the inoperable fire barriers or reroute the affected conduit so that fire wrap barriers are not required.

LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 500 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (F-330), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20545, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
Monticello Nuclear Generating Plant	0 5 0 0 0 2 6 3 9 2	—	0	0 8	—	0 1	0 2 OF 0 4

TEXT (If more space is required, use additional NRC Form 366A's) (1)

DESCRIPTION

On June 24, 1992, with the plant operating at 100% of rated thermal power, NRC Bulletin 92-01 was received. The bulletin pertained to Thermo-Lag 330 Fire Barrier Systems. On June 24, 1992, based on the bulletin, a one inch conduit fire barrier was declared inoperable and a continuous fire watch was established as required by Technical Specification 3.13.G.2. Subsequently, a fire detection system was installed in the area and a one hour fire patrol was established as permitted by Technical Specification 3.13.G.2.

On August 31, 1992, with the plant operating at 100% of rated thermal power, NRC Bulletin No. 92-01 Supplement 1 was received. The bulletin pertained to additional concerns about "Thermo-Lag 330 Fire Barrier Systems". On August 31, 1992, in accordance with the requirements of the bulletin supplement, a four inch conduit fire barrier was declared inoperable and an hourly fire watch patrol was established as required by Technical Specification 3.13.G.2.

The conduit fire barriers were installed July, 1986, and protect three sets of cables. The one inch conduit contains a cable which supplies power to the Division II 125 VDC Battery Charger D20 (EIS Component: BYC). The four inch conduit contains cables which supply 125 VDC (EIS System: EJ) power to the isolation circuit for the outboard Main Steam Isolation Valves (EIS Component: ISV) and control power for Division I 4160 VAC (EIS System: EB) breakers and #12 Emergency Diesel Generator (EIS Component: DG).

The conduits run from the Division II battery room located in the Administration Building (EIS System: MA) elevation 928 feet Fire Zone/Area VII/7C) through a Division I Fire Area adjacent to the Division I 125 VDC Battery room also located in the Administration Building at the same elevation. The conduit then exits the Administration Building and enters the Turbine Building (EIS System: NM) at the same elevation. If a fire had occurred in the Division I Fire Area, it could also have affected the Division II electrical cabling in the conduit thereby affecting redundant trains of safe shutdown equipment.

Technical Specification 3.13.G.1 states, "All penetration fire barriers in fire area boundaries shall be operable whenever safe shutdown equipment in that fire area is required to be operable". The inoperable fire barrier is a condition prohibited by Technical Specifications and is reportable under 10 CFR 50.73(a)(2)(i).

LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 500 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (F-830), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
Monticello Nuclear Generating Plant	0 5 0 0 0 2 6 3 9 2	—	0 0 8	—	0 1	0 3 OF 0 4

TEXT (If more space is required, use additional NRC Form 306A's) (17)

CAUSE

The cause of this event is the uncertainty about the capability of fire barriers which rely on this material as described in NRC Bulletin 92-01 and Supplement 1 thereto.

ANALYSIS

The area in which the conduits are located is the main entry point to the Turbine and Reactor (EIIS System: NG) Buildings. It is occupied continuously for about 8.5 hours per day and is frequently traversed by plant personnel. A security area which is manned 24 hours per day is located immediately adjacent to the area. This would ensure early warning if a fire had occurred in the area of the conduit. If a fire occurred in one of the three adjacent battery rooms, it would have been alarmed in the control room from fire detection equipment located in each of the battery rooms. The fire brigade would respond and combat the fire with hose stations and portable fire extinguishers located within, or adjacent to, the area.

If a fire had occurred in the area of the conduit, it may have spread to the area containing the conduits and damaged the cables. This could have caused the battery charger for the Division II battery to be inoperable and could have interrupted power to all Division II 4160 VAC breakers and Division II Emergency Diesel Generator and control circuits. The division II battery would still have been able to perform its function for four hours, even in the event of loss of offsite power. The High Pressure Coolant Injection System (EIIS System: BJ) would have been available to maintain reactor water inventory and the Safety Relief Valves (EIIS Component: RV) would have been available to maintain reactor pressure. This should have allowed time to call in extra operations personnel to operate equipment needed for safe shutdown. Equipment operation would include manual operation of electrical breakers, manual start and operation of the Division II Emergency Diesel Generator, and monitoring equipment with inoperable alarms and protective functions.

Based on the capability of early detection, fire brigade response, availability of High Pressure Coolant Injection, availability of Safety Relief Valves, and the fact that fire barriers were considered degraded and not failed, there were no consequences to the health and safety of the public.

LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 500 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)  Monticello Nuclear Generating Plant	DOCKET NUMBER (2)  0 5 0 0 0 2 6 3 9 2 — 0 0 8 — 0 1	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			

TEXT (If more space is required, use additional NRC Form 366A's) (17)

CORRECTIVE ACTIONS

Actions which have been completed:

1. On June 24, 1992 the one inch fire barrier was declared inoperable per NRC Bulletin 92-01 and a continuous fire watch was established.
2. A fire detection system with note alarms was installed in the area of the conduits July 2, 1992 and the continuous fire watch was replaced with a roving one hour fire patrol. Periodic surveillances are performed to ensure operability of the detection system.
3. On August 31, 1992, the four inch fire barrier was declared inoperable. The fire patrol already established in 2 above covered the same area of concern.
4. A response was submitted to the NRC for NRC bulletin 92-01 and a separate response was submitted for Supplement 1 of the Bulletin.
5. A special report was submitted to the NRC as required by plant Technical Specifications to outline the plans and schedule for restoring each fire barrier to operable status.

Action to be completed:

1. A Design Change has been initiated to replace the inoperable fire barriers or reroute the affected conduits so that they do not require fire wrap barriers. NUMARC has initiated an effort to qualify cable wraps and the outcome of this effort may impact the design change.

ADDITIONAL INFORMATION

Failed Component Identification

None

Previous Similar Events

None