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Northern States Power Company

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February 3, 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

Reactor Protection System Actuation Caused by
Spurious Intermediate Range Monitor Signal

The Licensee Event Report for this occurrence is attached.

This event was reported via the Emergency Notification System in accordance with 10 CFR Part 50, Section 50.72 on January 3, 1992.

Thomas M Parker
Manager
Nuclear Support Services

c: Regional Administrator - III NRC
Sr Resident Inspector, NRC
NRR Project Manager, NRC
MDH

Attn: Dr R Thron

Attachment

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LICENSEE EVENT REPORT (LER)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 MINS. 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 (2150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1) **MONTICELLO NUCLEAR GENERATING PLANT** DOCKET NUMBER (2) **0 1 5 1 0 1 0 1 2 1 6 1 3** PAGE (3) **1 OF 0 1 3**

TITLE (4) **Reactor Protection System Actuation Caused by Spurious Intermediate Range Monitor Signal**

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		
01	03	92	92	002	00	02	03	92			
									DOCKET NUMBER(S)		
									0 1 5 1 0 1 0 1 1 1		

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 8: (Check one or more of the following) (11)

OPERATING MODE (9) N	<input type="checkbox"/> 20.402(b)	<input type="checkbox"/> 20.405(e)	<input type="checkbox"/> 50.736(i)(2)(iv)	<input checked="" type="checkbox"/> 72.71(b)
POWER LEVEL (10) 0 1 0 0	<input type="checkbox"/> 20.406(a)(1)(i)	<input type="checkbox"/> 50.736(e)(1)	<input type="checkbox"/> 50.736(i)(2)(v)	<input type="checkbox"/> 72.71(e)
	<input type="checkbox"/> 20.406(a)(1)(ii)	<input type="checkbox"/> 50.736(e)(2)	<input type="checkbox"/> 50.736(i)(2)(vi)	<input type="checkbox"/> OTHER (Specify in Abstract below and in Text, NRC Form 366A)
	<input type="checkbox"/> 20.406(a)(1)(iii)	<input type="checkbox"/> 50.736(i)(2)(ii)	<input type="checkbox"/> 50.736(i)(2)(vii)(A)	
	<input type="checkbox"/> 20.406(a)(1)(iv)	<input type="checkbox"/> 50.736(i)(2)(f)	<input type="checkbox"/> 50.736(i)(2)(viii)(B)	
	<input type="checkbox"/> 20.406(a)(1)(v)	<input type="checkbox"/> 50.736(i)(2)(g)	<input type="checkbox"/> 50.736(i)(2)(ix)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
Jeff Olson, Nuclear Engineer	6 1 1 2 2 1 9 1 5 1 1 2 1 8 1 5
	AREA CODE

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE) NO

EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR

ABSTRACT (Limit to 1400 words, i.e., approximately fifteen unspaced typewritten lines) (16)

With the plant shutdown and the mode switch in REFUEL to perform an Intermediate Range Monitor surveillance, a spurious HI-HI signal from Intermediate Range Monitor 18 caused a Reactor Protection System trip. All rods were fully inserted at the time of the event and no rod movement resulted. The trip was reset and the surveillance test completed. The cause of the spurious signal was investigated but could not be determined.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 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)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
Monticello Nuclear Generating Plt	0 5 0 0 0 2 6 3	9 2	- 0 0 2	- 0 0	0 2	OF	0 3

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

DESCRIPTION

On January 3, 1992, at 2037 hours with the plant in Cold Shutdown (mode switch in REFUEL) for maintenance an Intermediate Range Monitor (EIIS System: IG)(EIIS Component: MON) spurious HI-HI signal caused a Reactor Protection System (EIIS System: JC) trip resulting in a scram. Intermediate Range Monitor calibration testing on Reactor Protection System channel "A" resulted in a trip of Reactor Protection System "A" as designed. During the time Reactor Protection System "A" was in the tripped condition a spurious HI-HI signal was received from Intermediate Range Monitor 18 which inputs into Reactor Protection System "B", resulting in a full scram signal.

The scram was reset. No control blade motion occurred due to the Reactor Protection System trip because all control rods were fully inserted prior to the event. There were no other equipment actuations as a result of this event.

Automatic actuation of any Engineered Safety Feature, including the Reactor Protection System, is reportable under 10 CFR 50.73(a)(2)(iv).

CAUSE

The root cause of this event could not be determined. The proximate cause was a spurious increase in the signal from Intermediate Range Monitor 18.

At the time of the event no core alterations or movement of core components were taking place and no maintenance activities were in progress in the vicinity of the Intermediate Range Monitor components except the surveillance being performed on Intermediate Range Monitors in Reactor Protection System channel "A". The Source Range Monitor system (EIIS System: IG) signal did not increase. It is therefore concluded that the increase in the Intermediate Range Monitor signal was not due to a valid neutron response.

ANALYSIS

At the time of the event all control rods were fully inserted. Therefore, there were no consequences that affected the health and safety of the public. This event could not have had more serious consequences.

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

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

CORRECTIVE ACTIONS

1. An investigation was conducted to determine the cause of the Intermediate Range Monitor increase. A specific cause could not be determined.
2. The Reactor Protection System was reset and the Intermediate Range Monitor surveillance was completed.

ADDITIONAL INFORMATION

Failed Component Identification

None

Previous Similar Events

There have been three previous similar events; Licensee Event Reports 89-024, 89-035, and 91-010. Actions taken for these events included maximizing the amount of time the mode switch is in SHUTDOWN during outages and minimizing work activities under the vessel and near nuclear instrumentation components. Although activities were minimized in the vicinity of nuclear instrumentation components in this instance, the corrective actions associated with previous events were not effective in preventing this event because the surveillance being performed required the mode switch to be out of the SHUTDOWN position.