

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) <p style="text-align:center;">Monticello</p>	DOCKET NUMBER (2) <p style="text-align:center;">0 5 0 0 0 2 6 3</p>	PAGE (3) <p style="text-align:center;">1 OF 0 2</p>
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TITLE (4) Faulty Feedwater Pump Oil Pressure Switch Actuation During Painting Leads to Reactor Scram

EVENT DATE (5)			LER NUMBER (8)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)																																									
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAMES		DOCKET NUMBER(S)																																							
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<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:15%;">OPERATING MODE (9) N</td> <td colspan="10">THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more of the following) (11)</td> </tr> <tr> <td rowspan="6">POWER LEVEL (10) 1 1 0 0</td> <td>20.402(b)</td> <td>20.406(c)</td> <td><input checked="" type="checkbox"/></td> <td>50.73(a)(2)(iv)</td> <td>73.71(b)</td> </tr> <tr> <td>20.406(a)(1)(i)</td> <td>50.38(e)(1)</td> <td></td> <td>50.73(a)(2)(v)</td> <td>73.71(c)</td> </tr> <tr> <td>20.406(a)(1)(ii)</td> <td>50.38(e)(2)</td> <td></td> <td>50.73(a)(2)(vi)</td> <td rowspan="4">OTHER (Specify in Abstract below and in Text, NRC Form 365A)</td> </tr> <tr> <td>20.406(a)(1)(iii)</td> <td>50.73(a)(2)(i)</td> <td></td> <td>50.73(a)(2)(vii)(A)</td> </tr> <tr> <td>20.406(a)(1)(iv)</td> <td>50.73(a)(2)(ii)</td> <td></td> <td>50.73(a)(2)(vii)(B)</td> </tr> <tr> <td>20.406(a)(1)(v)</td> <td>50.73(a)(2)(iii)</td> <td></td> <td>50.73(a)(2)(ix)</td> </tr> </table>												OPERATING MODE (9) N	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more of the following) (11)										POWER LEVEL (10) 1 1 0 0	20.402(b)	20.406(c)	<input checked="" type="checkbox"/>	50.73(a)(2)(iv)	73.71(b)	20.406(a)(1)(i)	50.38(e)(1)		50.73(a)(2)(v)	73.71(c)	20.406(a)(1)(ii)	50.38(e)(2)		50.73(a)(2)(vi)	OTHER (Specify in Abstract below and in Text, NRC Form 365A)	20.406(a)(1)(iii)	50.73(a)(2)(i)		50.73(a)(2)(vii)(A)	20.406(a)(1)(iv)	50.73(a)(2)(ii)		50.73(a)(2)(vii)(B)	20.406(a)(1)(v)	50.73(a)(2)(iii)		50.73(a)(2)(ix)
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LICENSEE CONTACT FOR THIS LER (12)

NAME David A Dilley, Production Engineer	TELEPHONE NUMBER 6 1 2 2 9 5 - 5 1 5 1
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COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDOS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDOS

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE:) NO

EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR

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

The event was initiated by a trip of the #11 reactor feedwater pump (RFP) (P-2A) due to a low oil pressure trip switch (PS-1735) actuation by a painter who was working in the area. Power was reduced and the tripped RFP returned to service. Vessel level increased rapidly to the high water level setpoint, tripping both RFPs and the main turbine giving a load reject scram. Vessel level then dropped to the low level setpoint, causing a reactor building isolation, a group II and a group III primary containment isolation and an automatic start of the standby gas treatment system. Reactor vessel level was recovered by manually initiating HPCI and restoring the feedwater system to normal. Plant conditions were stabilized using normal scram recovery procedures.

The #11 RFP oil pressure switch gauge glass was found loose. The housing cover plate was replaced and the trip setpoint of the switch verified correct. The procedure for recovery from loss of one RFP was revised to give better guidance on the immediate actions to be taken. A procedure was prepared for painting activities. Feedwater level control was verified to be operating properly.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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

On January 19, 1987, while at a steady state 100% power, plant painters were working in the reactor feedwater pump area. Some paint went on the gauge glass of the #11 reactor feedwater pump low oil pressure trip switch (PS). The gauge glass had not been taped up during painting preparation because it was noticed that the glass appeared loose. The painter was not aware of the significance of the switch and attempted to wipe the paint off. The loose gauge glass fell in and actuated the switch, which tripped the #11 reactor feedwater pump (RFP) (P) at 1329:51. The only initial alarm was "Reactor Feedwater Pump Trip". The only RFP trip signal which is not also independently alarmed is the low suction pressure trip. Adequate suction pressure was verified and thus, the trip was assumed to be spurious. Action was taken then to return the #11 RFP to service. At the same time, reactor power was immediately reduced to approximately 54% power at 1330:21 by manually reducing the recirculation pumps' (P) speed controllers (SIK) to minimum speed. At 1330:43, the #11 RFP was returned to service. Feedwater level control allowed vessel level to increase to the high water trip level at 1331:01, causing both RFPs to trip, as well as the main turbine (TUR). This in turn caused a load reject scram. Vessel level dropped below the low level trip setpoint at 1331:06, causing a reactor building isolation (JM) a group II/III primary containment isolation (JM), and an automatic initiation of the standby gas treatment system (BH). At approximately 1331:30, the high pressure coolant injection system (BJ) was manually initiated and at 1332:29, the feedwater system was returned to normal to restore normal water level. Normal scram recovery procedures were utilized.

The root causes of the event were determined to be:

- 1) The loose gauge glass in the #11 reactor feedwater pump oil pressure trip switch housing.
- 2) The painter was not aware of the significance of the instrumentation in the area.

A contributing cause was procedural inadequacy for immediate actions to be taken upon loss of one reactor feedwater pump. The procedure in use had the operator immediately restart the reactor feedwater pump, rather than stabilize plant conditions prior to restart.

Corrective actions were:

- 1) Replaced the loose gauge glass from the #11 reactor feedwater pump low oil pressure trip switch and verified correct setpoint.
- 2) A procedure was prepared and is now used that requires the painters and their supervisor to walkdown an area to be painted with the applicable system engineers, operations personnel and an instrument and controls specialist to identify all significant instrumentation and equipment.
- 3) The procedure for recovery from loss of one reactor feedwater pump has been revised to have the operator stabilize plant conditions prior to restarting a tripped reactor feedwater pump.
- 4) Feedwater level control was verified to be operating properly.

No further corrective actions are planned. This event had no effect on public health and safety, since the safety function of the affected systems were initiated and operated as designed. There have been no similar reportable events.



Northern States Power Company

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

February 18, 1987

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

Faulty Feedwater Pump Oil Pressure Switch
Actuation During Painting Leads to Reactor Scram

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 19, 1987.

for *Monica Vit*

David Musolf
Manager - Nuclear Support Services

DMM/MMV/dab

c: Regional Administrator-III, NRC
NRR Project Manager, NRC
Resident Inspector, NRC
MPCA
Attn: J W Ferman

Attachment

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