



Northern States Power Company

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

November 22, 1994

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

LER 94-018

Automatic Transfer of HPCI Suction from the Condensate Storage Tanks to the Torus
on High Torus Level During Surveillance Testing

The Licensee Event Report for this occurrence is attached. This report contains the following new NRC commitment:

An operator guideline will be established for the High Pressure Coolant Injection test identifying the level at which the Torus level should be reduced.

Please contact Tom Parker at (612) 295-1014 if you require further information.

R. O. Anderson
Roger O Anderson
Director
Licensing and Management Issues

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

Attachment

9411300276 941122
PDR ADOCK 05000263
S PDR

TEP
11

NRC FORM 366 (5-92)						U.S. NUCLEAR REGULATORY COMMISSION						APPROVED BY OMB NO. 3150-0104 EXPIRES 5/31/95																													
<h2 style="margin: 0;">LICENSEE EVENT REPORT (LER)</h2> <p style="font-size: small; margin: 5px 0;">(See reverse for required number of digits/characters for each block)</p>																		ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, 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) 05000 - 263						PAGE (3) 1 OF 4																							
TITLE (4) Automatic Transfer of HPCI Suction from the Condensate Storage Tanks to the Torus on High Torus Level During Surveillance Testing																																									
EVENT DATE (5)			LER NUMBER (6)				REPORT NUMBER (7)			OTHER FACILITIES INVOLVED (8)																															
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAME						DOCKET NUMBER																										
10	26	94	94	018	00	11	22	94	FACILITY NAME						DOCKET NUMBER																										
OPERATING MODE (9)			THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)																																						
POWER LEVEL (10)			<table border="0" style="width:100%; font-size: x-small;"> <tr> <td style="width: 20%;"><input type="checkbox"/> 20.402(b)</td> <td style="width: 20%;"><input type="checkbox"/> 20.405(c)</td> <td style="width: 20%;"><input checked="" type="checkbox"/> 50.73(a)(2)(iv)</td> <td style="width: 20%;"><input type="checkbox"/> 73.71(b)</td> </tr> <tr> <td><input type="checkbox"/> 20.405(a)(1)(i)</td> <td><input type="checkbox"/> 50.36(c)(1)</td> <td><input type="checkbox"/> 50.73(a)(2)(v)</td> <td><input type="checkbox"/> 73.71(c)</td> </tr> <tr> <td><input type="checkbox"/> 20.405(a)(1)(ii)</td> <td><input type="checkbox"/> 50.36(c)(2)</td> <td><input type="checkbox"/> 50.73(a)(2)(vii)</td> <td style="text-align: center;">OTHER</td> </tr> <tr> <td><input type="checkbox"/> 20.405(a)(1)(iii)</td> <td><input type="checkbox"/> 50.73(a)(2)(i)</td> <td><input type="checkbox"/> 50.73(a)(2)(viii)(A)</td> <td style="font-size: x-small;">(Specify in Abstract</td> </tr> <tr> <td><input type="checkbox"/> 20.405(a)(1)(iv)</td> <td><input type="checkbox"/> 50.73(a)(2)(ii)</td> <td><input type="checkbox"/> 50.73(a)(2)(viii)(B)</td> <td style="font-size: x-small;">below and in Text, NRC</td> </tr> <tr> <td><input type="checkbox"/> 20.405(a)(1)(v)</td> <td><input type="checkbox"/> 50.73(a)(2)(iii)</td> <td><input type="checkbox"/> 50.73(a)(2)(x)</td> <td style="font-size: x-small;">Form 366A)</td> </tr> </table>															<input type="checkbox"/> 20.402(b)	<input type="checkbox"/> 20.405(c)	<input checked="" type="checkbox"/> 50.73(a)(2)(iv)	<input type="checkbox"/> 73.71(b)	<input type="checkbox"/> 20.405(a)(1)(i)	<input type="checkbox"/> 50.36(c)(1)	<input type="checkbox"/> 50.73(a)(2)(v)	<input type="checkbox"/> 73.71(c)	<input type="checkbox"/> 20.405(a)(1)(ii)	<input type="checkbox"/> 50.36(c)(2)	<input type="checkbox"/> 50.73(a)(2)(vii)	OTHER	<input type="checkbox"/> 20.405(a)(1)(iii)	<input type="checkbox"/> 50.73(a)(2)(i)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)	(Specify in Abstract	<input type="checkbox"/> 20.405(a)(1)(iv)	<input type="checkbox"/> 50.73(a)(2)(ii)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)	below and in Text, NRC	<input type="checkbox"/> 20.405(a)(1)(v)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(x)	Form 366A)
<input type="checkbox"/> 20.402(b)	<input type="checkbox"/> 20.405(c)	<input checked="" type="checkbox"/> 50.73(a)(2)(iv)	<input type="checkbox"/> 73.71(b)																																						
<input type="checkbox"/> 20.405(a)(1)(i)	<input type="checkbox"/> 50.36(c)(1)	<input type="checkbox"/> 50.73(a)(2)(v)	<input type="checkbox"/> 73.71(c)																																						
<input type="checkbox"/> 20.405(a)(1)(ii)	<input type="checkbox"/> 50.36(c)(2)	<input type="checkbox"/> 50.73(a)(2)(vii)	OTHER																																						
<input type="checkbox"/> 20.405(a)(1)(iii)	<input type="checkbox"/> 50.73(a)(2)(i)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)	(Specify in Abstract																																						
<input type="checkbox"/> 20.405(a)(1)(iv)	<input type="checkbox"/> 50.73(a)(2)(ii)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)	below and in Text, NRC																																						
<input type="checkbox"/> 20.405(a)(1)(v)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(x)	Form 366A)																																						
LICENSEE CONTACT FOR THIS LER (12)																																									
NAME Tom Parker												TELEPHONE NUMBER (Include Area Code) 612-295-1014																													
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)																																									
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS																																					
SUPPLEMENTAL REPORT EXPECTED (14)																																									
YES (IF YES, COMPLETE EXPECTED SUBMISSION DATE)												<input checked="" type="checkbox"/> NO						EXPECTED SUBMISSION DATE (15)		MONTH	DAY	YEAR																			

ABSTRACT LIMIT TO 1400 SPACES, I.E., APPROXIMATELY 15 SINGLE-SPACED TYPEWRITTEN LINES) (16)
NCR FORM 366 (5-91)

During a surveillance test of the High Pressure Coolant Injection System, the Suppression Chamber (Torus) water level rose to the setpoint for transferring the pump suction from the Condensate Storage Tank to the Torus. The cause of this event was the lack of an appropriate procedure action point to allow time for the operator to pump water from the Torus prior to the level reaching the transfer setpoint. An operator guideline will be established for the High Pressure Coolant Injection test identifying the level at which the Torus level should be reduced.

NRC FORM 366A (5-92)		U.S. NUCLEAR REGULATORY COMMISSION		APPROVED BY OMB NO. 3150-0104 EXPIRES 5/31/95	
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 INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, 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)	
MONTICELLO NUCLEAR GENERATING PLANT		05000 263		YEAR 94	SEQUENTIAL NUMBER 018
				REVISION NUMBER 00	PAGE (3) 2 of 4

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

Description

During a surveillance test of the High Pressure Coolant Injection System (EIIIS System Code: BJ), the Suppression Chamber (Torus) water level rose to the setpoint for transferring the pump suction from the Condensate Storage Tank (EIIIS System Code: KA) to the Torus. This occurs at 2" above the Torus reference level; Torus level at the beginning of the test was -1".

The High Pressure Coolant Injection System consists of a pump driven by a steam turbine. The pump adds high pressure water to the reactor in the event of a loss of water (leak/line break), during the surveillance test the pump discharge is directed to the Condensate Storage Tanks. The turbine is driven by main steam with the exhaust steam being directed to the Torus where it is condensed. During the surveillance test, this condensed water typically increases the Torus water level at a rate of 2 to 3 inches per hour. The test normally takes 30 minutes to perform.

The normal suction for the High Pressure Coolant Injection pump is the Condensate Storage Tanks. When there is a low water level in the Condensate Storage Tanks or a high level in the Torus, the suction automatically transfers to the Torus. There is a finite amount of water in the Condensate Storage Tanks. During a break in the primary boundary (that is not large enough to de-pressurize the reactor), the water from the break will flow to the Torus. Therefore, transferring the suction to the Torus will ensure a continuous supply of water to the High Pressure Coolant Injection pump during a break and prevent overfilling the Torus.

Upon receiving the automatic transfer of the High Pressure Coolant Injection Pump suction from the Condensate Storage Tanks to the Torus, the operator stopped the High Pressure Coolant Injection System. Water was pumped out of the Torus and systems restored to normal.

Cause

The cause of this event was the lack of an appropriate procedure action point to allow time for the operator to pump water from the Torus prior to the level reaching the transfer setpoint. One of the three licensed reactor operators was assigned to run the High Pressure Coolant Injection Test. The operator was also controlling Torus cooling

NRC FORM 366A (5-92)		U.S. NUCLEAR REGULATORY COMMISSION		APPROVED BY OMB NO. 3150-0104 EXPIRES 5/31/95	
LICENSEE EVENT REPORT (LER) TEXT CONTINUATION				<small>ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.</small>	
FACILITY NAME (1)		DOCKET NUMBER (2)		LER NUMBER (6)	
MONTICELLO NUCLEAR GENERATING PLANT		05000 263		YEAR 94	SEQUENTIAL NUMBER 018
				REVISION NUMBER 00	PAGE (3) 3 of 4

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

(to remove the energy added to the Torus water by the exhaust steam from the High Pressure Coolant Injection turbine).

The test ran longer than normal as concerns with vibration and turbine speed indication were investigated. As Torus level increased, the operator queried the engineer running the test on how much longer the test would run. The engineer expected the test to conclude soon. As time went on, the operator decided to drain the Torus to prevent the transfer of the pump suction to the Torus. However, the Torus temperature was approaching 90°F (an Emergency Operating Procedure entry condition) at the same time that level was approaching +2 inches. The operator appropriately initiated all available Torus cooling at this point. Next, the operator initiated actions to drain the Torus which involves coordinating two out-plant operators and several breaker and valve manipulations. As the Torus level began to be pumped down, the transfer occurred.

Analysis

This event is reportable per 10 CFR Part 50, Section 50.73(a)(2)(iv) since an automatic actuation of a Engineered Safety Feature occurred. The signal was a valid high level Engineered Safety Feature signal and therefore this event is reportable.

The pump can operate safely from either suction; therefore there are no consequences to this event.

Corrective Actions

An operator guideline will be established for the High Pressure Coolant Injection test identifying the level at which the Torus level should be reduced.

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 INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)	DOCKET NUMBER (2)	YEAR	LER NUMBER (6) SEQUENTIAL NUMBER	REVISION NUMBER	PAGE (3)
MONTICELLO NUCLEAR GENERATING PLANT	05000 263	94	018	00	4 of 4

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

Failed Component Identification
None

Previous Similar Events

LER 92-014 - the cause of this event was the jarring of a level switch and not applicable to this event.