

## LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Cooper Nuclear Station	DOCKET NUMBER (2) 0 5 0 0 0 2 9 8	PAGE (3) 1 OF 0 3
---	--------------------------------------	----------------------

TITLE (4)  
High Pressure Coolant Injection System Inoperability

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
11	22	85	85	017	00	12	19	85	
									DOCKET NUMBER(S) 0 5 0 0 0

OPERATING MODE (9) N	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §. (Check one or more of the following) (11)									
	20.402(b)		20.405(c)		50.73(a)(2)(iv)		73.71(b)			
	20.405(a)(1)(i)		50.36(c)(1)		X 50.73(a)(2)(v)		73.71(c)			
	20.405(a)(1)(ii)		50.36(c)(2)		50.73(a)(2)(vii)		OTHER (Specify in Abstract below and in Text, NRC Form 366A)			
	20.405(a)(1)(iii)		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)					
POWER LEVEL (10) 0 0 7	20.405(a)(1)(v)		50.73(a)(2)(iii)		50.73(a)(2)(ix)					

LICENSEE CONTACT FOR THIS LER (12)									
NAME E. M. Mace, Plant Engineering Supervisor								TELEPHONE NUMBER 4 0 2 8 2 5 - 3 8 1 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	
X	B	J	Z	I	S	G	0	5	2	N	

SUPPLEMENTAL REPORT EXPECTED (14)								EXPECTED SUBMISSION DATE (15)		MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE: )								X NO				

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

On November 22, 1985, at 0930, the High Pressure Coolant Injection (HPCI) system was determined to be inoperable. This event occurred when HPCI system startup operability testing was performed during plant startup following a Turbine/Generator outage. The reactor mode switch was in Startup, the reactor critical, and reactor pressure at 170 psig. Control room operators were unable to confirm that the HPCI system testable check injection valve disc would fully open as required. Accordingly, the HPCI system was declared inoperable. Station Technical Specifications require that the HPCI system be operable whenever reactor pressure is greater than 113 psig.

The HPCI testable check injection valve is a 14" Atwood Morrill swinging disc check valve with a side mounted air actuating cylinder. The air actuating cylinder is used to rotate the disc shaft to verify unobstructed motion of the valve disc. During examination of the disc position indicating switches, one of the switches was found out of adjustment. The exact cause of this occurrence cannot be determined, however, it is felt that the switch was accidentally jarred from its normal position by personnel working in the area during the recent outage. The switch was subsequently readjusted and the valve was satisfactorily tested.

This event represented no nuclear safety consequences concerning public health and safety.

8512260273 851219  
PDR ADOCK 05000298  
S PDR

IE22  
11

## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/88

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
Cooper Nuclear Station	05000298	85	0117	00	02	OF	03

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

On November 22, 1985, at 0930, the High Pressure Coolant Injection (HPCI) system was determined to be inoperable during HPCI system startup operability testing. The reactor mode switch was in Startup, the reactor critical, and reactor pressure at 170 psig. Control room operators were unable to confirm that the HPCI system testable check injection valve disc would fully open as required. Accordingly, the HPCI system was declared inoperable. Reactor startup was halted and operability testing on other core and containment coolant systems was initiated as required by Technical Specifications. Core Spray (CS), Low Pressure Coolant Injection (LPCI), and the Automatic Depressurization System (ADS) were all operable prior to and during this event. Station Technical Specifications require the HPCI system to be operable whenever reactor pressure is greater than 113 psig. The United States Nuclear Regulatory Commission (USNRC) was notified via the station Emergency Notification System (ENS) at 0944.

The HPCI system testable check injection valve is a 14 inch, 900 psi Atwood Morrill swinging disc check valve with a side mounted air actuated cylinder (air to open, spring to close). The check valve is normally closed with Reactor Feedwater Loop B operating pressure acting on the downstream side of the disc. A pressure maintenance system keeps the line full of water on the upstream side. Upon HPCI injection, upstream pressure becomes greater than downstream (feedwater) pressure, causing the valve disc to swing open and coolant is injected into the reactor vessel via B feedwater loop.

During normal operation, after upstream and downstream pressures across the valve are equalized, the disc can be exercised by applying air pressure to the actuating cylinder (to ensure unobstructed movement). The valve utilizes Gem Corporation magnetic switches to indicate the open and closed positions of the internal disc. The switches are actuated by means of a permanent magnet raised and lowered within a stainless steel tube according to the movement of the disc. The switches are magnetically actuated as the internal magnet comes into proximity to the externally mounted switches. The air actuating cylinder is also equipped with limit switches so that the opened and closed positions of the exerciser are indicated along with the actual opened and closed position of the disc itself.

At 1017, electricians were dispatched to examine the externally mounted disc position indicating switches. The open position indicating switch was found slightly out of adjustment. The switch was readjusted and the valve was successfully tested by 1136. At 1250, HPCI operability testing was completed and HPCI was declared operable. The elapsed time of this event was 3 hours, 20 minutes.

The exact cause of the mispositioned external position indicating switch cannot be determined. However, it is felt that the most probable cause is associated with an accidental blow to the switch from personnel working in the area during the preceding seven week Turbine/Generator repair outage.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

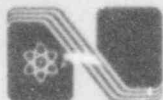
APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/88

FACILITY NAME (1)  Cooper Nuclear Station	DOCKET NUMBER (2)  0   5   0   0   0   2   9   8   8   5   —   0   1   7   —   0   0	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		OF	

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

It should be noted that despite the testable check valve position indicating switch problem, the HPCI system would have been fully capable of fulfilling its design safety function. This event represented no nuclear safety consequences concerning public health and safety and has no generic implications.



## Nebraska Public Power District

COOPER NUCLEAR STATION  
P.O. BOX 98, BROWNVILLE, NEBRASKA 68321  
TELEPHONE (402) 825-3811

CNSS850703

December 19, 1985

U. S. Nuclear Regulatory Commission  
Document Control Desk  
Washington, D.C. 20555

Dear Sir:

Cooper Nuclear Station Licensee Event Report 85-017 is forwarded as an attachment to this letter.

Sincerely,

P. V. Thomason  
Division Manager of  
Nuclear Operations

PVT:lb

Attach.

cc: R. D. Martin  
L. G. Kunc1  
J. D. Weaver  
L. R. Berry  
INPO Records Center  
ANI Library

IE22  
11