

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 2
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TITLE (4)
High Pressure Coolant Injection Overspeed Trip Control Valve Diaphragm Failure

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 8	2 8	8 4	8 4	0 1 1	0 0	0 9	2 6	8 4				0 5 0 0 0
												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)									
POWER LEVEL (10) 0 8 9	20.402(b)	20.406(a)	50.73(a)(2)(iv)	73.71(b)						
	20.406(a)(1)(i)	50.36(a)(1)	X 50.73(a)(2)(v)	73.71(a)						
	20.406(a)(1)(ii)	50.36(a)(2)	50.73(a)(2)(vi)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)						
	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)(x)								

LICENSEE CONTACT FOR THIS LER (12)		TELEPHONE NUMBER	
NAME E. M. Mace, Plant Engineering Supervisor		AREA CODE	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 NPROS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS	
E	B I J	P I C I V I	R I 2 9 0	Y						

SUPPLEMENTAL REPORT EXPECTED (14)			EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
<input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE) <input checked="" type="checkbox"/> NO						

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

Lube oil was visually discovered leaking from the High Pressure Coolant Injection (HPCI) system overspeed trip auto reset control valve diaphragm actuator. The HPCI system was subsequently declared inoperable by the station Shift Supervisor. Operational testing on other core and containment cooling systems as required by station Technical Specifications was performed. The reactor was operating at 89 percent of rated thermal power at the time that this condition was detected. Corrective action was taken to repair the leaking control valve diaphragm actuator. Following the repair, the HPCI system was tested and declared operable. This event has no generic significance.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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		YEAR 8 4	SEQUENTIAL NUMBER - 0 1 1 1	REVISION NUMBER - 0 0	0 2	OF 0 2

TEXT (if more space is required, use additional NRC Form 388A's) (17)

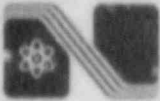
On August 28, 1984, while on a scheduled tour of the reactor building, a station operator detected lube oil leakage in the HPCI pump room. The origin of the lube oil leakage was traced to a failed diaphragm on the HPCI turbine overspeed trip auto reset control valve actuator. The HPCI system was then declared inoperable by the station Shift Supervisor at 1652. Operational testing on other core and containment cooling systems as required by station Technical Specifications was performed as a result of declaring the HPCI system inoperable.

The function of the subject control valve is to regulate the duration of an overspeed trip condition; i.e., the time period from overspeed trip to overspeed trip reset. A detailed description of the HPCI overspeed trip system can be found in the HPCI vendor manual located at Cooper Nuclear Station.

Failure of the control valve diaphragm causes the control valve to fail closed. This condition would preclude proper operation of the overspeed trip piston in the event of an overspeed event. However, this condition would not affect normal operation of the HPCI pump.

The control valve diaphragm failure occurred during the daily HPCI turbine stop valve cycling surveillance. The stop valve is cycled by operating the HPCI control oil system using the HPCI auxiliary oil pump. When this surveillance is performed, other components in the control oil system are also cycled, such as the overspeed trip auto reset control valve. The diaphragm leakage was detected shortly after this surveillance was performed on August 28, 1984. Total lube oil leakage was estimated at two gallons. The HPCI lube oil reservoir has a capacity of 155 gallons. The control valve diaphragm was replaced and the HPCI system was declared operable at 2219.

A review of plant equipment history information indicated that the failed diaphragm was the original diaphragm supplied with the HPCI unit. Therefore, the diaphragm failure is believed to be an end of component life failure. Corrective action has been taken to place the diaphragm in the plant preventative maintenance program. The diaphragm will be replaced on a two year refueling outage frequency. This event presented no adverse consequences from the standpoint of public health and safety and has no generic significance. No further action is planned.



Nebraska Public Power District

COOPER NUCLEAR STATION
P.O. BOX 98, BROWNVILLE, NEBRASKA 68321
TELEPHONE (402) 725-3811

CNSS840364

September 26, 1984

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

Dear Sir:

Cooper Nuclear Station Licensee Event Report 84-011 is forwarded as an attachment to this letter.

Sincerely,

for P. V. Thomason
Division Manager of
Nuclear Operations

PVT:lb

Attach.

cc: J. T. Collins
L. G. Kunc1
J. D. Weaver
L. R. Berry
INPO Records Center
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