



## Nebraska Public Power District

COOPER NUCLEAR STATION  
P.O. BOX 98, BROWNVILLE, NEBRASKA 68321  
TELEPHONE (402)825-3811  
FAX (402)825-5211

CNSS923523

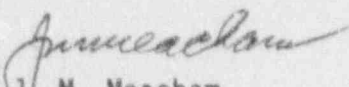
January 17, 1992

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

Dear Sir:

Cooper Nuclear Station Licensee Event Report 91-022, Revision 0, is being forwarded as an attachment to this letter.

Sincerely,

  
J. M. Meacham  
Division Manager of  
Nuclear Operations  
Cooper Nuclear Station

JMM,

Attachment

cc: R. D. Martin  
G. R. Horn  
R. E. Wilbur  
V. L. Wolstenholm  
D. A. Whitman  
INPO Records Center  
NRC Resident Inspector  
R. J. Singer  
CNS Training  
CNS Quality Assurance

9201230133 910117  
PDR ADOCK 05000298  
S PDR

Powerful Pride in Nebraska

IF22  
11

## LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Cooper Nuclear Station										DOCKET NUMBER (2) 0 5 0 0 0 2 9 8 1 0 0 1 3										PAGE (3) 1 0 1 3						
TITLE (4) Actuation Of The Primary Containment Group 3 Isolation Function When Placing A Partially Filled Reactor Water Cleanup Filter Demineralizer In Service																										
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)												
1	2	2	1	9	1	9	1	0	2	2	0	0	0	1	1	7	9	1	0	5	0	0	0	1	1	3
OPERATING MODE (9)		N		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 50. Check one or more of the following: (11)																						
POWER LEVEL (10)		0 5 5		20.402(b)				20.405(c)				X 50.73(a)(2)(iv)				73.71(b)										
				20.405(a)(1)(i)				50.38(c)(1)				50.73(a)(2)(v)				73.71(c)										
				20.405(a)(1)(ii)				50.38(c)(2)				50.73(a)(2)(vi)				OTHER (Specify in Abstract below and in Text, NRC Form 305A)										
				20.405(a)(1)(iii)				50.73(a)(2)(i)				50.73(a)(2)(vii)(A)														
				20.405(a)(1)(iv)				50.73(a)(2)(ii)				50.73(a)(2)(viii)(B)														
				20.405(a)(1)(v)				50.73(a)(2)(iii)				50.73(a)(2)(ix)														
LICENSEE CONTACT FOR THIS LER (12)															TELEPHONE NUMBER											
NAME Donald L. Reeves, Jr.															AREA CODE 4 0 2 8 2 5 1 - 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	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC												
SUPPLEMENTAL REPORT EXPECTED (14)										EXPECTED SUBMISSION DATE (15)					MONTH DAY YEAR											
YES (If yes, complete EXPECTED SUBMISSION DATE)										X NO																
ABSTRACT (Limit to 1400 words, i.e., approximately fifteen single-space typewritten lines) (16)																										

On December 21, 1991, at 6:52 p.m., upon opening the inlet valve to the 'B' Reactor Water Cleanup (RWCU) Filter Demineralizer, a partial Group 3 Isolation was received, causing one of the two inlet isolation valves, RWCU-MOV-M018 to close. The Group 3 Isolation occurred due to actuation of differential pressure flow switch RWCU-DPIS-170B. The setpoint was reached as a result of an apparent flow surge due to the filter demineralizer not being completely full of water.

At the time, the plant was operating at approximately 55 percent power (450 MWe). Power was being increased with control rods and Reactor Recirculation flow during the return to full power operation following the 1991 Refueling Outage.

An investigation revealed that the normally open Waste Sample Pump Discharge Valve to the Condensate Supply (CM) System, CM-AOV-643AV, was closed, preventing proper filling of the Filter Demineralizer. It is postulated that during other processing activities during the 00-0800 shift on December 21, the control switch for CM-AOV-643AV was mis-positioned to CLOSE.

The Filter Demineralizer was filled and vented. The Group 3 Isolation was reset, and at 7:01 p.m., the 'B' Filter Demineralizer was placed in service. In order to preclude a similar error in the future, a switch guard has been installed around the control switch for CM-AOV-643AV on panel LR-28. Further action to be taken includes a discussion of this event with Operations Department shift personnel and a review of Radwaste Procedure 2.5.3.4, RWCU Filter Demineralizer.

LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 800 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)

Cooper Nuclear Station

0

5

0

6

0

2

9

8

9

1

-

0

2

2

-

0

0

0

2

OF

0

3

TEXT (If it is a license is required - use additional NRC Form 306A's) (17)

A. Event Description

On December 21, 1991, at 6:52 p.m., upon opening the inlet valve to the 'B' Reactor Water Cleanup (RWCU) Filter Demineralizer, a partial (Channel B) Group 3 (RWCU System) Isolation was received, causing one of the two inlet isolation valves, RWCU-MOV-MO18 to close. The Group 3 Isolation occurred due to actuation of differential pressure flow switch RWCU-DPIS-170B. The flow switch setpoint was reached as a result of an apparent flow surge that occurred due to the filter demineralizer not being completely full of water.

B. Plant Status

Operating at approximately 55 percent power (450 MWe), increasing power with control rods and Reactor Recirculation flow during the return to full power operation following the 1991 Refueling Outage.

C. Basis for Report

Unplanned actuation of the Group 3 Isolation circuit, an Engineered Safety Feature (ESF), reportable in accordance with 10CFR50.73 (a)(2)(iv).

D. Cause

Human Miscue. An investigation revealed that the normally open Waste Sample Pump Discharge Valve to the Condensate Supply (CM) System, CM-AOV-643AV, was closed. Water supplied from one of the two Waste Sample Tanks via the Waste Sample Pump (through CM-AOV-643AV) is the principal source for backwashing and filling a RWCU filter demineralizer. The control switch for this valve along with control switches for approximately a dozen other valves, is located on panel LR-28 just outside of the east Radwaste Control Room door. Two of these valves are routinely operated. CM-AO-10338, the Waste Demineralizer Outlet valve, is opened when processing water from the Waste Surge Tank to the Waste Sample Tanks. CM-AOV-642AV, the Waste Sample Pump Discharge Valve to the Condensate Storage Tank, is opened when transferring water from a Waste Sample Tank to the Condensate Storage Tank. Both of these activities had been performed in the early morning hours of December 21. It is postulated that upon completion of one of these evolutions, the control switch for CM-AOV-643AV was mis-positioned to CLOSE.

E. Safety Significance

The RWCU System high flow switches are provided to mitigate the consequences of a break in the system. The purpose of automatic closure of the RWCU inlet isolation valves upon actuation of the high flow switch(es) is to protect the core by preventing continued inventory losses through the break. In this particular situation, a RWCU System break had not occurred. Instead a small void existed within a RWCU filter demineralizer. Consequently, actuation of the Group 3 Isolation circuitry was not required for core protection.

LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 500 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20545, AND "D" THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

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

TEXT (If more space is required, use additional NRC Form 306A, e/ (17))

F. Safety Implications

Since a RWCU System break did not exist, actuation of the Group 3 Isolation function under the plant conditions that existed would not have been more significant than at any other plant condition or power level.

G. Corrective Action

The filter demineralizer was filled and vented. The Group 3 Isolation was reset, and at 7:01 p.m., the 'B' Filter Demineralizer was placed in service. As noted in paragraph D, a subsequent investigation revealed the incorrectly positioned valve.

In order to preclude a similar error in the future, a switch guard has been installed around the control switch for CM-AOV-643AV on panel LR-28. With the switch guard installed, actuation of the switch will require positive operator action. Further action to be taken includes a discussion of this event with Operations Department shift personnel and a review of Radwaste Procedure 2.5.3.4, RWCU Filter Demineralizer.

H. Similar Events

None.