



Nebraska Public Power District

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

CNSS933118

May 21, 1993

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

Dear Sir:

Cooper Nuclear Station Licensee Event Report 93-016, Revision 0, is forwarded as an attachment to this letter.

Sincerely,

R. L. Gardner
Plant Manager

RLG/ju

Attachment

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

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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) Design Change Installation Deficiency Resulting in Control Room Emergency Bypass System Activation Failure During Surveillance Testing																
EVENT DATE (5) 0 4 2 2 9 3			LER NUMBER (6) 9 3 0 1 6				REPORT DATE (7) 0 0 0 5 2 1 9 3			OTHER FACILITIES INVOLVED (8) FACILITY NAMES 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)														
POWER LEVEL (10) 0 0 0		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(a)		
		20.405(a)(1)(ii)				50.36(c)(2)				50.73(a)(2)(vii)				OTHER (Specify in Abstract below and in Text, NRC Form 356A)		
		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)						
		20.405(a)(1)(v)				50.73(a)(2)(iii)				50.73(a)(2)(x)						
LICENSEE CONTACT FOR THIS LER (12)																
NAME Donald L. Reeves, Jr.										TELEPHONE NUMBER AREA CODE 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	MANUFAC- TURER	REPORTABLE TO NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFAC- TURER	REPORTABLE TO NPRDS						
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)

On April 22, 1993, during performance of a surveillance test of the Control Room Ventilation (HVAC) System Radiation Monitor, RMV-RM-1, the Control Room HVAC System did not isolate and transfer to the emergency bypass mode of operation upon insertion of the particulate check source. The surveillance test was being performed as post-maintenance testing (PMT) for a maintenance adjustment made to the monitor. An investigation revealed that an On-the-Spot Change (OSC) to a design change associated with the radiation monitor, sparing two cables, had not been properly implemented. At the time when the OSC was implemented, the 1993 Refueling Outage was in progress, the reactor was defueled and the Control Room HVAC System was not required to be operable.

This event was caused by personnel error and inadequate design change instructions. The OSC specifically identified the cables to be spared, however, craft personnel erred during its implementation. Further, no quality control verification was specified in the OSC instructions to ensure the proper cables were lifted.

An OSC was implemented to correct the wiring error. The surveillance procedure was successfully performed to verify restoration of the safety function. The OSC procedure will be updated to require that standard design and installation requirements, such as implementation of quality control, be incorporated in OSCs. The contents of this LER will be incorporated into contractor craft indoctrination and training. Additionally, this event will be reviewed in industry events training for engineering, operations and station management personnel who prepare, review and approve OSCs.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/86

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

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

A. Event Description

On April 22, 1993, during performance of a surveillance test of the Control Room Ventilation (HVAC) System Radiation Monitor, RMV-RM-1, the Control Room HVAC System did not isolate and transfer to the emergency bypass mode of operation upon insertion of the particulate check source. The surveillance test was being performed as post-maintenance testing (PMT) for a maintenance adjustment made to the monitor. An investigation revealed that an On-the-Spot Change (OSC) to a design change associated with the radiation monitor system had been written to lift and spare out two cables, M1000 and M1000A. However, rather than sparing out cable M1000A as directed, cable M1001 was spared instead. Cable M1001 transmits the Control Room HVAC isolation signal from the radiation monitor system to the HVAC control system.

B. Plant Status

When the design change installation deficiency was identified, the 1993 Refueling Outage was in progress. The plant was in a Cold Shutdown condition with the reactor de-fueled. The investigation revealed that the condition was created on March 30, 1993. From that date until discovery on April 22, operability of the Control Room HVAC System in the Emergency Bypass mode of operation had not been required. This event was determined to be reportable on April 23 following management review of the circumstances associated with performance of PMT.

C. Basis for Report

A condition that could have prevented the fulfillment of a safety function of a system needed to mitigate the consequences of an accident, reportable in accordance with 10CFR50.73(a)(2)(v).

D. Cause

This event was caused by personnel error and inadequate design change instructions. The OSC specifically identified the cables to be spared, however, craft personnel erred during its implementation. Further, no quality control verification was specified in the OSC to ensure the proper cables were lifted.

E. Safety Significance

During operation of the Control Room HVAC System in the Emergency Bypass mode, incoming air to the Control Room is filtered by high efficiency particulate air (HEPA) filters and by charcoal adsorbers to reduce the airborne radiological exposure to Control Room personnel. The system is designed to automatically start upon Control Room isolation and to maintain the Control Room pressure positive relative to the Control Building.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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

Safety Significance - (continued)

Due to sparing the wrong cable, the automatic isolation and transfer capability of the Control Room HVAC System was rendered inoperable from March 30, 1993, until April 23, 1993. During that time frame, operability of the Control Room HVAC System in the Emergency Bypass mode was not required, as no refueling operations were performed. Therefore, the safety significance of this abnormal system configuration was minimal.

Performance of DC activities of this nature is reserved for outages. Scheduling of such activities is based on compliance with Technical Specification requirements and Outage Risk Management Guidelines. While the automatic isolation feature was disabled, radiation level monitoring and annunciation, as well as the capability to manually isolate the Control Room and initiate the HVAC System in the Emergency Bypass mode of operation was available, if required.

F. Safety Implications

The safety significance of this event, had it occurred when the monitor was required to be operable, would be substantially the same as described above.

G. Corrective Action

An OSC was implemented to correct the wiring error. The surveillance procedure was successfully performed to verify restoration of the safety function.

The OSC procedure will be updated to require that standard design and installation requirements, such as implementation of quality control, be incorporated in OSCs. The contents of this LER will be incorporated into contractor craft indoctrination and training. Additionally, this event will be reviewed in industry events training for engineering, operations and station management personnel who prepare, review and approve OSCs.

H. Similar Events

None.