



Nebraska Public Power District

COOPER NUCLEAR STATION
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TELEPHONE (402) 825-3811

CNSS933083

April 15, 1993

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

Dear Sir:

Cooper Nuclear Station Licensee Event Report 93-006, Revision 0, is being forwarded as an attachment to this letter.

Sincerely,

R. L. Gardner
Plant Manager

RLG/ju

Attachments

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 1 OF 0 4

PAGE (3)

TITLE (4)
Fire Barrier Doors Discovered Open and Obstructed Without a Continuous Fire Watch
Due to Personnel Error

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	3	1	6	9	3	9	3	0	0	6	0	0	0	0	0
0	3	1	6	9	3	9	3	0	0	6	0	0	0	0	0

OPERATING MODE (9)	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5: (Check one or more of the following) (11)											
N	20.402(b)			20.405(c)			50.73(a)(2)(iv)			73.71(b)		
POWER LEVEL (10)	0 0 1 0			20.405(a)(1)(i)			50.73(a)(2)(v)			73.71(c)		
				20.405(a)(1)(ii)			50.73(a)(2)(vi)			OTHER (Specify in Abstract below and in Text, NRC Form 366A)		
				20.405(a)(1)(iii)			50.73(a)(2)(vii)					
				20.405(a)(1)(iv)			50.73(a)(2)(viii)(A)					
				20.405(a)(1)(v)			50.73(a)(2)(viii)(B)					
				20.405(a)(1)(vi)			50.73(a)(2)(ix)					

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	MANUFACTURER	REPORTABLE TO NPDs	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDs	CAUSE	SYSTEM

SUPPLEMENTAL REPORT EXPECTED (14)
YES / If yes, complete EXPECTED SUBMISSION DATE: ☒ NO

EXPECTED SUBMISSION DATE (15)

MONTH DAY YEAR

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

On March 16, 1993, at 11:00 pm, two Fire Barrier doors that provide passage from a stairwell into two safety-related pump rooms located below grade in the Southwest corner of the Reactor Building were found open and obstructed with no Fire Watch assigned. On April 10, 1993, at approximately 8:20 pm, a Fire Barrier door to the Service Water (SW) Pump Room in the Intake Structure was found open and obstructed without a Fire Watch. At the time of these events, the plant was in Cold Shutdown for the 1993 Refueling Outage.

The root cause for these Technical Specification violations is personnel error. Health Physics (HP) personnel blocked open one of the doors in the Reactor Building stairwell with a temporary ventilation duct. They were focused on the radiological concerns of the job in progress and failed to notice the red dot marking on the door signifying that the door was to remain in the closed position or a Fire Watch was to be stationed. The other two events were the result of lapses in attention to Fire Barrier door requirements by the involved personnel.

Upon finding the two Reactor Building doors open and obstructed, the obstructions were removed and the doors were closed. The situation was reviewed at the outage coordination meetings and compliance with station fire protection requirements was stressed. Additionally, a roving Fire Door Patrol was initiated as a means of assuring that Fire Barrier doors were closed or that a Fire Watch was stationed. Upon discovering the SW Pump Room door open and obstructed, the obstructions were removed and the door was closed. Personnel directly involved were counseled. In order to prevent recurrence of the problems experienced, a review of the Fire Watch implementation process will be conducted, and appropriate enhancements will be made.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 60.0 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) Cooper Nuclear Station	DOCKET NUMBER (2) 0 5 0 0 0 2 9 8	LER NUMBER (6)			PAGE (3)		
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TEXT (If more space is required, use additional NRC Form 366A's) (17)

A. Event Description

On March 16, 1993, at 11:00 pm, two Fire Barrier doors were found open and obstructed with no Fire Watch assigned as required by Technical Specifications. The doors provide for passage from a stairwell into the High Pressure Coolant Injection (HPCI) Room and Residual Heat Removal (RHR) Pump Room, both of which are located below grade in the Southwest corner of the Reactor Building. The door to the HPCI Room was obstructed with a stanchion, while the door to the RHR Pump Room was obstructed with a 12 inch temporary ventilation duct that was connected to a filter unit in the stairwell. The filter unit had been installed 10½ hours earlier, at 12:35 pm. The stanchion blocking the other door open had been placed 9 hours earlier. At the time, both systems were out of service; the RHR Sub-system due to its being drained, and the HPCI System due to plant shutdown conditions.

On April 10, 1993, at approximately 8:20 pm, a Fire Barrier door to the Service Water (SW) Pump Room at the Intake Structure was found open and obstructed. A Fire Watch had been posted in the area continuously since April 4 for three reasons: 1) The Halon Fire Suppression System had been disabled to ensure an inadvertent discharge did not occur during performance of SW System design change (DC) work; 2) DC work involved spark producing activities; i.e., welding cutting, and grinding; and 3) The Fire Barrier door was open and obstructed with welding cables. Upon completing work on April 10, the Halon System was restored, but the integrity of the Fire Barrier door was not re-established prior to departure of the Fire Watch at 5:20 pm.

B. Plant Status

In Cold Shutdown for the 1993 Refueling Outage.

C. Basis for Report

Failure to comply with fire barrier requirements specified in Section 3.19.A of the Technical Specifications, reportable in accordance with 10CFR50.73(a)(2)(i)(B).

D. Cause

Personnel. Health Physics (HP) personnel who blocked open and obstructed the door to the RHR Pump Room with the temporary ventilation duct were focused on the radiological concerns of the job in progress and failed to notice the red dot marking on the door signifying that the door was to remain in the closed position or a Fire Watch was to be stationed if it needed to be blocked open. Contract craft personnel were responsible for blocking open the door to the HPCI Pump Room for outage activities that were in progress.

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 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.

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

D. CAUSE - (continued)

With regard to the SW Pump Room door, when the Halon Fire Suppression System was restored to operation, the significance of the Fire Barrier door remaining open and obstructed was missed. These two events were the result of lapses in attention to the requirements for Fire Barrier doors by the involved personnel.

E. Safety Significance

The safety significance of the two doors in the Reactor Building being open and obstructed is minimal. The Fire Hazards Analysis specifies the equivalent fire severity for the RHR Pump Room and HPCI Pump Room to be 10 minutes and 16 minutes, respectively. Neither system was required to be operable nor capable of operation at the time when the doors were blocked open due to the plant being in Cold Shutdown, making HPCI inoperable, and due to the affected RHR Sub-system being drained. The doors actually serve to isolate and protect the life safety stairwell from the effects of fire and smoke in the adjacent rooms.

With regard to the SW Pump Room door, the SW System was required to be in operation for continuing heat removal requirements. While the Fire Hazards Analysis specifies that the equivalent fire severity for the SW Pump Room is only three (3) minutes, the fire suppression capability of the installed Halon system was jeopardized due to the lack of room integrity.

Had a fire occurred in any of the fire areas, it would have been detected by the installed automatic detection systems that were in service in the areas, annunciating an alarm(s) in the Control Room. The Fire Brigade would have responded according to procedural requirements, and would have been expected to extinguish the fire using manual fire suppression equipment.

F. Safety Implications

The potential for fire is expected to be greater during maintenance activities involving hot work, a much more likely activity during periods of plant shutdown. However, a fire in these areas containing safety-related equipment is considered to be more significant when the plant is operating.

G. Corrective Action

Upon finding the two doors in the Reactor Building open and obstructed, the Fire Protection Engineer removed the stanchion obstructing the door to the HPCI Room and closed the door. He then remained at the RHR Pump Room door until HP Technicians removed the temporary ventilation duct and the door was closed. The situation was reviewed by the Outage

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TEXT (If more space is required, use additional NRC Form 365A's) (17)

G. CORRECTIVE ACTION - (continued)

Directors at the outage coordination meetings conducted at the beginning of each shift and compliance with station fire protection requirements was stressed. Additionally, a roving Fire Door Patrol was initiated as a means of assuring that fire doors were closed or that a Fire Watch was stationed.

Upon discovery of the SW Pump Room door being open and obstructed by the roving Fire Door Patrol, the Outage Director was notified. Action was taken to clear the obstructions and close the door. Subsequently, the personnel involved were counseled.

A review of the Fire Watch implementation process will be conducted to identify enhancements which, when established, will prevent recurrence of the problems experienced.

H. Similar Events

LER 91-013, dated November 18, 1991, reported the door to the Steam Tunnel had been found open and obstructed without a Fire Watch being posted. Action taken included updating the two associated procedures; one addressing fire doors, the other addressing Fire Watches, to better integrate the two. Additionally, training material was updated and the infraction was the subject of Industry Events Training. To preclude recurrence, a roving Fire Door Patrol was initiated for the duration of the refueling outage. While this event is similar, it is not identical, in that contract craft and HP personnel were involved in these most recent instances. Therefore, except for the roving Fire Door Patrol, actions taken in 1991 would not have prevented these events.