Nebraska Public Power District

COOPER NUCLEAR STATION
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TELEPHONE (402) 825-3811

CNSS938023

December 20, 1993

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

Dear Sir:

Cooper Nuclear Station Licensee Event Report 93-037, Revision 0, is forwarded as an attachment to this letter.

Sincerely,

R. L. Gardner
Plant Manager

RLG/dc

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

IE22 1/1

NRC Form 366
(9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/88

LICENSEE EVENT REPORT (LER)

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

TITLE (4)
Failure to Declare the Control Room Emergency Filter System Inoperable Prior to Initiating Maintenance on a Fire Door

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 5 0 0 0
1 1	1 9	9 3	9 3	— 0 3 7	— 0 0	1 2	2 0	9 3		0 5 0 0 0

OPERATING MODE (9)		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (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)		20.405(a)(1)(i)	50.36(c)(1)	X 50.73(a)(2)(v)	73.71(c)
1 0 0		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)	
		20.405(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
	AREA CODE
John Myers	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 NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	

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

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

On November 18, 1993, at 3:56 pm, a Fire Door was declared inoperable and a Fire Watch was posted in compliance with Technical Specification requirements. Subsequently, the door was removed from its hinges for maintenance without recognition of its additional function in the Control Room envelope boundary. On the next day, following completion of maintenance, the Control Room Envelope Pressurization Test was performed as part of post-maintenance testing but was unsatisfactory. At 5:20 pm on November 19, upon recognizing that the envelope was degraded, the Control Room Emergency Filter System, a single train safety system, was declared inoperable. Investigation revealed air leakage around seals on the subject door as weli as two additional envelope doors. Repairs were made to the three doors on November 20, and at approximately 10:00 am the surveillance test was satisfactorily performed. Following further engineering evaluation of conditions found during the test, the system was declared operable at 2:17 pm on November 22. At the time of this event, the plant was operating at full power.

The cause of this event is a programmatic deficiency, in that it was not evident to Fire Protection and Maintenance personnel, nor to the Shift Supervisor, that removal of the Fire Door degraded the Control Room Envelope. Procedures and programs will be revised to ensure clear identification of all functions which each door performs. The preventive maintenance (PM) activity for inspection and replacement of Control Room envelope door seals will be upgraded to improve inspection and testing criteria. The adequacy of testing frequency and PM of the Control Room envelope will also be evaluated.

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

A. Event Description

On November 18, 1993, at 3:56 pm, Fire Door BLDG-DOOR-H305 (Control Building 932' Secondary Alarm Station to Computer Room) which also serves as part of the boundary for the Control Room envelope was declared inoperable (reference LER 93-036). A Fire Watch was posted in compliance with Technical Specification requirements. Subsequently, the door was removed from its hinges for maintenance without recognition of its Control Room envelope boundary function. On the next day, engineering personnel reviewing maintenance actions recognized the Control Room envelope function of this door. Following completion of repairs, Surveillance Procedure 6.3.17.18, Control Room Envelope Pressurization Test, was performed as part of post-maintenance testing. The test results, however, were unsatisfactory. At 5:20 pm on November 19, upon recognizing that the envelope was degraded, the Control Room Emergency Filter System was declared inoperable. During this testing, the Control Room could be maintained at a positive pressure, but the Cable Spreading Room, which is also part of the Control Room envelope, remained slightly negative. Investigation determined that air leakage existed around the seals on door H305, as well as around the seals on two additional Control Room envelope boundary doors, H300 (Main Control Room Corridor Fire Door to Change Area Corridor) and H202 (Cable Spreading Room Fire Door to Change Area Stair). Of these, only door H305 had been recently subject to maintenance.

The seals for door H305 were adjusted and the seals on doors H300 and H202 were replaced on November 20. The surveillance test was repeated and acceptance criteria was met. Following further engineering evaluation of test results, the Control Room Emergency Filter System was declared operable at 2:17 pm on November 22.

B. Plant Status

The plant was in normal power operation at approximately 100 percent power at the time of these events.

C. Basis for Report

This event is reportable per 10CFR50.73(a)(2)(v), a condition which alone could have prevented the fulfillment of a safety function required to mitigate the consequences of an accident. Notification in accordance with 10CFR50.72 was made at 7:15 pm on November 19, 1993. This notification had not been made on November 18 for the reasons noted in Section A above.

D. Cause

The cause of this event is due to a programmatic deficiency, in that it was not evident to the individuals involved that removal of the Fire Door degraded the Control Room envelope. Investigation revealed air leakage around seals on the subject door as well as two additional envelope doors. It should be noted that of the three doors, Fire Door H305 was the only one subject to maintenance since the surveillance test was last passed on September 16, 1993.

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

E. Safety Significance

The Control Room Emergency Filter System, a single train safety system, is designed to protect personnel in the Control Room from excessive chemical exposure in the event of an anhydrous ammonia spill, or radiation exposure in the event of a Design Basis Accident. In the event airborne radiation is detected in the Control Room air intake, the Emergency Bypass Fan automatically starts and the system valves automatically position. An alarm is generated by the start of the fan. With the degraded door seals, pressurization of the Cable Spreading Room would not occur and infiltration would be a concern. An Area Radiation Monitor is also located in the Control Room area. This monitor would actuate if radiation levels in the Control Room became a concern. The response to this alarm would include surveying the Control Room, thus leading to detection of problems with the ventilation system.

F. Safety Implications

The effect of the loss of Control Room pressurization is most significant during a Design Basis Accident at power.

G. Corrective Action

The seals on the doors were replaced or adjusted as appropriate. Upon completion of testing and further engineering evaluation, the Control Room Emergency Filter System was declared operable. To address the programmatic deficiency:

1 Procedures and programs will be revised to ensure clear identification of door functions.

2 Training of plant personnel will be upgraded to ensure that personnel are aware of these functions.

3 Fire protection procedures will be revised to specifically recognize the additional functions which each door performs.

The PM for the visual inspection and replacement of these door seals, which was recently approved, will be upgraded to improve inspection and testing criteria. The adequacy of testing frequency of the Control Room envelope will also be evaluated.

H. Similar Events

Two Deficiency Reports were written during the 1993 Refueling Outage in April, documenting concerns with the seals for Control Room envelope doors H200, H201, and H300. The seals for these doors were either adjusted or replaced.