

Omaha Public Power District

P.O. Box 399 Hwy. 75 - North of Ft. Calhoun Fort Calhoun, NE 68023-0399
402/636-2000

December 31, 1992
LIC-92-0269

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Mail Station P1-137
Washington, DC 20555

Reference: Docket No. 50-285

Gentlemen:

Subject: Licensee Event Report 92-030 for the Fort Calhoun Station

Please find attached Licensee Event Report 92-030 dated December 31, 1992. This report is being submitted pursuant to 10 CFR 50.73(a)(2)(i)(B) and pursuant to Fort Calhoun Station Technical Specification 5.9.3. If you should have any questions, please contact me.

Sincerely,

W. G. Gates

W. G. Gates
Vice President

WGG/jrg

Attachment

c: J. L. Milhoan, NRC Regional Administrator, Region IV
S. D. Bloom, NRC Project Manager
R. P. Mullikin, NRC Senior Resident Inspector
INPO Records Center

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PDR ADOCK 05000285
S PDR

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LICENSEE EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.5 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)

Fort Calhoun Station Unit No. 1

DOCKET NUMBER (2)

05000285

PAGE (3)

1 OF 5

TITLE (4)

Failure to Satisfy Fire Watch Requirements for Inoperable Fire Barrier

EVENT DATE (5)			LER NUMBER (6)			REPORT NUMBER (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
12	01	92	92	-- 030 --	00	12	31	92	FACILITY NAME	DOCKET NUMBER
										05000
									FACILITY NAME	DOCKET NUMBER
										05000

OPERATING MODE (9)	1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 8: (Check one or more) (11)								
POWER LEVEL (10)	100	20.402(b)		20.405(c)		50.73(a)(2)(iv)		73.71(b)		
		20.403(a)(1)(i)		50.36(c)(1)		50.73(a)(2)(v)		73.71(c)		
		20.405(a)(1)(ii)		50.36(c)(2)		50.73(a)(2)(vii)		X	OTHER	
		20.405(a)(1)(iii)	X	50.73(a)(2)(i)		50.73(a)(2)(viii)(A)		(Specify in Abstract below and in Text, NRC Form 366A)		
		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)		Special Report		

LICENSEE CONTACT FOR THIS LER (12)

NAME

C. E. Booth, Shift Technical Advisor

TELEPHONE NUMBER (Include Area Code)

(402) 533-6874

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

SUPPLEMENTAL REPORT EXPECTED (14)

YES

(If yes, complete EXPECTED SUBMISSION DATE)

X

NO

EXPECTED
SUBMISSION
DATE (15)

MONTH DAY YEAR

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On November 30, 1992 at approximately 1500, Fire Barrier Penetration 19-E-30, connecting the Turbine Building and Room 19 of the Auxiliary Building, was breached to support maintenance on a Component Cooling Water/Raw Water (CCW/RW) heat exchanger. Fort Calhoun Station Technical Specification (TS) 2.19(7) requires that a hourly fire watch be established within one hour of the breach. The Fire Protection Impairment Permit was not properly completed. As a result, from December 1, 1992 at approximately 1545, until December 2, 1992 at 1134, there was no hourly fire watch to satisfy the TS requirement for Penetration 19-E-30. On identification of the impaired fire barrier, compensatory measures were established in accordance with TS requirements.

The root cause of this event was determined to be inappropriate actions and lack of attention to detail.

This report is being submitted pursuant to 10 CFR 50.73(a)(2)(i)(B). This report is also being submitted pursuant to TS 5.9.3, because three fire barriers impaired to support the CCW/RW work, have been inoperable for more than seven days.

Corrective actions involve completing CCW/RW heat exchanger cleaning, counselling the responsible craftsperson on the event, and providing refresher training to fire watch qualified personnel.

**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 INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

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Fort Calhoun Station Unit No. 1	05000285	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	2 OF 5
		92	-- 030 --	00	

TEXT (If more space is required, use additional copies of NRC Form 368A) (17)

BACKGROUND

On November 30, 1992, Fort Calhoun Station (FCS), was operating in Mode 1 at 100% power. Planned maintenance was scheduled to start on AC-1C, one of four Component Cooling Water/Raw Water (CCW/RW) heat exchangers. The maintenance would involve isolating and draining the Raw Water side of the heat exchanger to allow cleaning and eddy current testing of the heat exchanger tube bundle.

As part of the activity, equipment was pre-staged in Room 19 to collect raw water drained from the heat exchanger. Room 19 is located in the Auxiliary Building and contains the three Instrument Air/Service Air Compressors and two safety related Auxiliary Feedwater Pumps.

From this collection point, following sampling and analysis, this water could then be pumped to the turbine building sump for release. The flow path from the collection point in Room 19 to the turbine building sump required that the discharge hose be passed through Fire Barrier Penetration 19-E-30. This is a 4.5 inch diameter penetration between the Turbine Building and the Auxiliary Building.

Technical Specification (TS) 2.19(7) requires that all penetration fire barriers protecting safety-related areas shall be functional (intact). With a penetration fire barrier non-functional, within one hour, either a continuous fire watch is to be established on at least one side of the affected penetration, or the operability of fire detectors on at least one side of the penetration is to be verified and an hourly fire watch patrol established. The non-functional penetration is to be restored to functional status within seven days, or a report is to be prepared and submitted to the Nuclear Regulatory Commission pursuant to TS 5.9.3 within an additional 30 days.

EVENT DESCRIPTION

On November 30, 1992 at 0745, a pre-job briefing was held to discuss work that would be performed under Maintenance Work Order (MWO) 922845. This job would involve the draining of the raw water side of CCW/RW Heat Exchanger AC-1C.

At 0915, four Fire Protection Impairment Permits (FPIP) 2935, 2936, 2937 and 2938 were initiated by the craft for fire barriers that would be breached as a result of this job. At 0935, the four FPIPs were signed by the fire protection system engineer. The craft personnel then returned to the maintenance shop with the FPIPs.

**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 INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (3)			PAGE (3)
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		92	-- 030 --	00	

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

From 0950 to 1400, craft personnel were involved in multiple tasks relating to the obtaining and staging of equipment that would be required for the job. This included a lead craftsperson who had been specifically tasked by the crew leader with responsibility for the FPIPs.

At approximately 1500, the crew leader asked the lead craftsperson if the FPIPs were ready and posted at the job site. The craftsperson responded by posting the FPIPs at the required locations, but failed to ensure that all the required signatures were obtained. The signatures of the Shift Supervisor (SS) and Security Shift Supervisor (SSS) had not been obtained nor had required copies of the FPIPs been provided to these individuals. As a result, the SS and SSS were unaware of the impairment and the need for the associated fire watch. At this time, Fire Barrier Penetration 19-E-30, associated with FPIP 2938, was breached to support the equipment staging. The impairment resulted when the penetration was opened, by removing the endcaps, to allow a hose to be passed from Room 19 to the Turbine Building. No other fire barrier was impaired as a result of the heat exchanger work at this time.

The failure to properly implement FPIP 2938 prior to breaching penetration 19-E-30 was a violation of station procedures, but did not at that time represent a violation of TS 2.19(7). The TS 2.19(7) requirement for an hourly fire watch was being met by a previously initiated fire watch associated with FPIP 2930. (FPIP 2930 addressed impairment of the door between Rooms 18 and 19.)

At 1530, the crew leader questioned a second craftsperson if the FPIPs had been posted at the job site. It was confirmed that they had been posted. However, the second craftsperson failed to notice that the posted FPIPs included the white Control Room copy and that all three copies; Control Room (white), Fire Watch (pink) and Job Site (yellow) were posted together.

On December 1, 1992 at 1545, security officers with fire watch duties closed out existing FPIP 2930 in Room 19. The guards questioned the need to maintain a fire watch due to the work on the heat exchanger and made a review of the posted FPIPs. At 1700 the security officers identified FPIPs 2936 and 2937 as being posted but not properly completed and initiated actions to have them completed. Work had not yet reached the point, however, where these FPIPs were required.

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FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (3)			PAGE (3)
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TEXT (If more space is required, use additional copies of NRC Form 368A) (17)

On December 2, 1992 at 0900, Security performed a follow-up inspection of the CCW heat exchanger job site. At that time the remaining two FIPs, 2935 and 2938, were found posted but not properly signed. FPIP 2935 was not yet required at that point in time. However, FPIP 2938 was required due to the breach in Penetration 19-E-30. As a result, action was taken to complete FPIP 2938, and the required fire watch was implemented at 1134.

From December 1, 1992 at approximately 1545, until December 2, 1992 at 1134, there was no hourly fire watch to satisfy the TS requirements for Penetration 19-E-30. During this time the requirements of TS 2.19(7) were not met. This report is being submitted pursuant to 10 CFR 50.73(a)(2)(i)(B).

This report is also being submitted pursuant to TS 5.9.3 (as referenced in TS 2.19(7)) because three barriers impaired to support the CCW/RW work (i.e., Fire Door 989-12, Penetration Seal 19-E-30 and the block wall between Rooms 18 and 19) have been inoperable for more than seven days. As noted previously, Penetration Seal 19-E-30 was breached at approximately 1500 on November 30, 1992. Fire Door 989-12 and the block wall between Rooms 18 and 19 were both breached after 1134 on December 2, 1992. Fire watch requirements have been satisfied except as previously noted for Penetration Seal 19-E-30. Plans for restoring the penetrations to functional status are addressed under Corrective Actions.

EVALUATION/SAFETY ASSESSMENT

This event was not significant with respect to plant safety. During the event, the fire detection, alarm and suppression system was operable for the areas in which the fire barrier was breached. The hourly fire watch specified in TS 2.19(7) provides a means of supplementing this system since the breach included a safety-related area (i.e., Room 19; the Turbine Building is not a safety-related area). However, the primary means of detection, the installed fire detection system, remained available and provided continuous monitoring of the affected area.

CONCLUSION

The results of a Root Cause Analysis determined that the primary cause of this event was inappropriate actions and a lack of attention to detail. Self-checking was not practiced by the responsible maintenance craft.

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FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (3)			PAGE (3)
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TEXT (If more space is required, use additional copies of NRC Form 388A) (17)

CORRECTIVE ACTIONS

The following corrective actions have been or will be completed:

1. The CCW/RW heat exchanger cleaning is expected to be completed by January 29, 1993. Necessary compensatory fire watches required by TS 2.19(7) will remain in effect until the fire protection impairments are closed out.
2. The responsible craftsperson was counselled on the event.
3. Refresher training will be provided by January 31, 1993 to fire watch qualified personnel, and will discuss the specific responsibilities of the fire watch with respect to Standing Order G-58 "Control of Fire Protection System Impairments" FPIPs.

PREVIOUS SIMILAR EVENTS

LERs 90-001, 90-024, 90-027, 91-006, 92-003 and 92-021 discuss other recent events involving Technical Specification 2.19 fire watch requirements.