

**LICENSEE EVENT REPORT (LER)**

FACILITY NAME (1) Fort Calhoun Station, Unit No. 1										DOCKET NUMBER (2) 0 5 0 0 0										PAGE (3) 1 OF 0 3													
TITLE (4) Non-Functional Fire Barriers																																	
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 N										DOCKET NUMBER(S) 0 5 0 0 0														
1	0	2	6	8	4	8	4	-	0	2	2	-	0	0											0 5 0 0 0								
OPERATING MODE (9) 1			THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 8: (Check one or more of the following) (11)																														
POWER LEVEL (10) 1 0 0			20.402(b)					20.405(e)					50.73(a)(2)(iv)					73.71(b)															
			20.405(a)(1)(i)					50.38(c)(1)					50.73(a)(2)(v)					73.71(e)															
			20.405(a)(1)(ii)					50.38(c)(2)					50.73(a)(2)(vi)					OTHER (Specify in Abstract Box and in Test Area Form 3654)															
			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)(ix)																				
LICENSEE CONTACT FOR THIS LER (12)																																	
NAME Ronald A. Johansen - Test Engineer Fort Calhoun Station, Unit No. 1															TELEPHONE NUMBER AREA CODE 4 0 2 4 2 6 - 4 0 1 1																		
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)																																	
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS																								
B	F	A	P	E	N	D	2	1	7	N																							
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 fifteen single-space typewritten lines) (16)																																	

Technical Specification 2.19(7) requires all penetration fire barriers protecting safety-related areas to be functional (intact) or certain actions must be taken. During late October, 1984, maintenance was being performed to upgrade penetration temporary fire barriers to a permanent status in the switchgear rooms, diesel generator rooms and electrical penetration rooms. Upon removing the damming material from several cable tray penetration temporary fire barriers, it was noted that the as-found conditions of some of the temporary barriers did not meet design criteria. These barriers were repaired within the same working day. In addition to repairing the temporary barriers, the District has expanded its inspections to include permanent cable tray penetration fire barriers in order to ensure that all penetration fire barriers containing cable trays meet design criteria.

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## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

APPROVED OMB NO. 3150-0104

EXPIRES 8/31/85

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (8)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
Fort Calhoun Station, Unit No. 1	0 5 0 0 0 2 8 5 8 4	—	0 2 2	—	0 0	0 2	OF 0 3

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

On August 13, 1984, a contract maintenance group started work on upgrading temporary penetration fire barriers (e.g., cable trays, mechanical pipe penetrations and electrical conduit penetrations) at the Fort Calhoun Station in order to bring these barriers up to a permanent status. During October, work began on upgrading the cable tray penetration temporary fire barriers in the switchgear rooms, diesel generator rooms and electrical penetration rooms. This work consisted of removing the ceraboard damming material from the temporary penetration fire barriers and inspecting the RTV foam for voids (areas where no foam was present) and breaches (areas where the foam had been torn or ripped) which would need repair. The manufacturer of the RTV foam is Dow Corning. The manufacturer's model number is 3-6548. Prior to commencing upgrade work, the appropriate Technical Specification Action Statement was followed. When voids or breaches were found, the voids or breaches were filled with RTV foam per the appropriate approved procedures and the ceraboard damming material was reinstalled and caulked in place. As this work continued, it was noticed that some of the cable tray penetration fire barriers had voids in them which had not been filled with cerafiber. These voids were not identified previously during surveillance inspections since the procedure utilized specified external visual inspections which only verified proper installation of the ceraboard damming material.

The voids and/or breaches were caused by one or both of the following: Either cable tray penetration fire barriers were not filled completely with RTV foam during original installation of the barriers; or, during some plant modifications and maintenance (evidenced by torn foam around new conduits or cables in the cable tray penetration) which degraded or breached fire barriers, the resulting voids and/or breaches were not properly refilled with either cerafiber or RTV foam. The degraded fire barriers were repaired to at least temporary status within the same working day.

Prior to discovery of the degraded fire barriers the plant was in power operation (mode 1) at approximately 100% power.

#### Safety Assessment

As the degraded barriers were discovered, immediate action was taken to rectify the situation. Although these barriers were found to be degraded, they still would provide some degree of fire dampening. However, no quantitative data exist for determining the actual fire rating of barriers with voids or breaches such as were found. It is believed that the characteristics of the foam are such that expansion would occur to some degree lessening the impact of voids or breaches.

For the rooms in question, operable fire detectors were in service with alarms in the control room. Mobile fire fighting equipment, such as CO<sub>2</sub> and dry chemical extinguishers, is available in these rooms. A halon system is available in the switchgear rooms. The diesel generator rooms have automatic fire suppression systems which alarm on system actuation. The cable spreading room (which has several cable tray penetration fire barriers running into it from the switchgear rooms) is protected by a halon system also.

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TEXT (If more space is required, use additional NRC Form 388A's) (17)

Corrective Actions

In addition to the immediate corrective action of returning the cable tray fire barriers to functional status, the following actions have been or will be taken:

- (1) Voids and breaches in temporary fire barriers have been repaired as part of the process of upgrading the temporary barriers to permanent status.
- (2) By January, 1985, plant procedures will be reviewed and changed or created as necessary in order to provide more rigorous control during maintenance or modification activities involving fire barriers.
- (3) The District has inspected the internals of permanent cable tray penetration fire barriers and has corrected any discrepancies found.

**Omaha Public Power District**  
1623 Harney Omaha, Nebraska 68102  
402/536-4000

November 26, 1984  
FC-802-84  
LIC-84-397

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

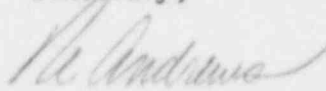
Reference: Docket No. 50-285

Gentlemen:

Licensee Event Report for the  
Fort Calhoun Station

Please find attached Licensee Event Report 84-022 dated November 26, 1984.  
This report is being submitted per requirements of 10 CFR 50.73.

Sincerely,



R. L. Andrews  
Division Manager  
Nuclear Production

RLA/DJM/rh-W

Attachment

cc: Mr. Dorwin R. Hunter, Chief  
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Fort Calhoun File (2)

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