NRC Form 366
(9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/85

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)

Catawba Nuclear Station, Unit 1

DOCKET NUMBER (2): 0 5 0 0 0 4 1 1 3

PAGE (3): 1 OF 0 3

TITLE (4)

Inoperable Fire Barrier Penetrations

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)
1 2	1 9	8 4	8 4	— 0 3 2	— 0 1	0 6	0 3	8 5		0 5 0 0 0
										0 5 0 0 0

OPERATING MODE (9)	POWER LEVEL (10)	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)			
6	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)	50.73(a)(2)(v)	73.71(c)
		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)	X 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
Roger W. Ouellette, Assistant Engineer - Licensing	7 0 4 — 3 7 3 1 - 1 7 5 3 0

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)	X NO				

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

During a spot inspection on December 19, 1984, seven inoperable fire barrier penetrations were discovered. The Shift Supervisor was immediately notified of the problem. The penetrations were then resealed and identified as a non-conforming item.

It is likely that the penetrations were opened by cable pulling activities, and were not repaired by resealing with fire-stop material. The date that the fire barrier penetrations were initially left inoperable could not be determined. Therefore, the duration of inoperability is unknown.

It is apparent that failure to follow established procedures occurred. Therefore, this incident is classified as a Personnel Error. The affected fire barriers are required to be operable per Technical Specification 3.7.11, and this incident is reportable pursuant to 10 CFR 50.73(a)(2)(i)(B). Unit 1 was in Mode 6 (Refueling) at the time of discovery of this incident.

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When cable, conduit, or pipe routing activities take place, Construction Procedure 469 (CP469) is used to document affected penetrations, times of inoperability, and resealing of fire barriers. CP469 requires notification of proper personnel as to fire barrier status, documentation of fire barrier open and close time, fire watches for inoperable fire barriers, QC inspection and approval of resealing, etc. CP469 has been used by the Construction Department since May of 1984. In May of 1984 a preoperational inspection of all fire barrier penetrations was completed, with all fire barriers found acceptable.

Maintenance Work Request 1060 MNT was written to perform spot inspections of fire barrier penetrations to determine continued operability. On December 19, 1984, seven fire barrier penetrations were found to have been opened and not resealed. The Shift Supervisor was immediately notified, but no fire watch or patrol was established, because the fire barrier penetrations repair was started immediately. A Nonconforming Item Report was also written to document the problem and subsequent resoltuion. Given the small size of the openings in the fire barriers, it is likely that cable pulling activities were the cause. Vandalism is unlikely in this case, given the obscure location of and the difficulty in getting to the penetrations.

A review was conducted to attempt to find specific cables responsible for each fire barrier penetration. By use of computer records, all cables going through these penetrations were identified. The scope was further narrowed by reviewing only the cables that had been pulled since May of 1984, after the preoperational inspection. The results show that these cables have proper associated documentation, including the resealing of the fire barriers. It appears that the personnel responsible for these cables properly adhered to procedures.

Given the adequacy of the procedure when used properly, the inoperable fire barriers were apparently the result of failure to follow procedure when pulling other cables which could not be identified. Therefore, this incident is classified as a Personnel Error, although the responsible personnel could not be identified.

All personnel who route cables and reseal penetrations have been trained on CP469. However, to prevent recurrence of the incident, retraining will be provided.

CORRECTIVE ACTION

1) The affected fire barrier penetrations were resealed.

2) All personnel responsible for fire barrier penetrations will receive retraining on CP469.

3) A memorandum will be written to all electrical craftsmen to inform them of this incident and re-emphasize the need to follow CP469.

4) A complete re-inspection of all fire barrier penetrations will be performed to determine operability.

SAFETY ANALYSIS

No fire has been identified in the areas protected by these fire barriers since May of 1984. The health and safety of the public was unaffected by this incident.

In some cases, repairs to the firestop penetrations were made but they still did not conform to the installation specification. In addition to the cases identified in LER 84-032-00, the Resident Inspector found an additional example.

This incident involved a cable running between Unit 1 and Unit 2. The improper repair was located in a penetration through the interim barrier. These problems resulted from repairing and inspecting the penetration from only one side of the penetration. Specification CNS-1380.01-00-0098, Revision 24 now requires that repairs to the firestop penetration be repaired and inspected from both sides of the penetration.

In the remaining cases, which are the majority, the firestop penentrations were not repaired at all. The CP-469B forms attached to the F-13A forms only listed an opened firestop penetration pulled through it that day. There was no requirement of list and account for each individual cable. As many as 5 or 6 layers of cable tray may run through a firestop penetration. Investigations indicate that the missed repairs were a result of not having a system to account for all the openings, cable by cable, through a given firestop penetration.

Revision 10 to CP-469 has added the requirement that each individual cable number must be listed in the comments section of the CP-469B form under the corresponding firestop penetration identification number. Revision 10 has also added the requirement that the QC Inspector shall verify that the entire penetration has been closed and meets the acceptable criteria listed in the appropriate specification. Affected craft and QA personnel were trained on this revision.

CP-469 has been revised again to make the QC Inspector's sign-off of the CP-469B form mandatory before the fire-watch can be released for a particular penetration. The procedure wording will be strengthened to assure that the inspector does not sign-off any individual cable in a penetration until every cabel in that penetration is properly repaired. The revision will also incorporate specific guidelines concerning the specification change noted above dealing with repair and inspection on both sides of the penetration. This revision has been issued and appropriate people have been trained.

DUKE POWER COMPANY
P.O. BOX 33189
CHARLOTTE, N.C. 28242

HAL B. TUCKER
VICE PRESIDENT
NUCLEAR PRODUCTION

TELEPHONE
(704) 373-4531

June 3, 1985

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

Subject: Catawba Nuclear Station
Docket No. 50-413

Gentlemen:

Attached is Revision 1 to Licensee Event Report 413/84-32 concerning inoperable fire barrier penetrations. This event was considered to be of no significance with respect to the health and safety of the public.

Very truly yours,

Hal B. Tucker

Hal B. Tucker

RWO:slb

Attachment

cc: Dr. J. Nelson Grace, Regional Administrator
U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30323

Palmetto Alliance
2135½ Devine Street
Columbia, South Carolina 29205

Robert Guild, Esq.
P. O. Box 12097
Charleston, South Carolina 29412

Mr. Jesse L. Riley
Carolina Environmental Study Group
854 Henley Place
Charlotte, North Carolina 28207

NRC Resident Inspector
Catawba Nuclear Station

American Nuclear Insurers
c/o Dottie Sherman, ANI Library
The Exchange, Suite 245
270 Farmington Avenue
Farmington, CT 06032

M&M Nuclear Consultants
1221 Avenue of the Americas
New York, New York 10020

INPO Records Center
Suite 1500
1100 Circle 75 Parkway
Atlanta, Georgia 30339

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