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)	DOCKET NUMBER (2)	PAGE (3)
Catawba Nuclear Station, Unit 1	0 5 0 0 0 4 1 1 3	1 OF 0 4

TITLE (4)
Conduit Firestop Seals Not Installed

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 2	2 0	8 5	8 5	0 1 3	0 0	0 3	2 2	8 5		0 5 0 0 0
										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)			
5	20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)
POWER LEVEL (10) 0 0 0	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 - 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 random inspection on February 20, 1985, conduits penetrating fire barriers which did not have their ends sealed for fire protection were discovered. This was determined to be a generic problem, and a Nonconforming Item Report was written. After a subsequent determination of inoperability, all conduits that penetrate fire barriers were traced down, and seals installed in their ends as required.

The applicable Construction Procedure, CP469, did not require builder craft to seal conduit ends as required in installation specifications. Therefore, this incident is classified as a Procedural Deficiency. Also, a contributing cause of Personnel Error, is assigned to this incident due to the failure of Construction QA to adequately review work against applicable specifications.

Catawba Unit 1 was in Mode 5, Cold Shutdown, at the time of the incident. This incident is reportable pursuant to 10 CFR 50.73, Section (a)(2)(i)(B).

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

Fire walls and barriers exist to prevent the transfer of flames, smoke or hot gasses from one area to another. When fire barriers are penetrated by conduit or electrical cable, fire resistant material, such as silicone RTV foam or cerafiber bulk, has to be installed in the fire barrier to seal the breach. This material also has to be installed in the ends of all conduits that penetrate a fire barrier.

Cable penetration and firestop work activities are conducted under Construction Procedure 469 (CP469), Installing and Reentering Penetration Firestops, Pressure Seals and Flood Seals. CP469 incorporates the requirements of the Specification for Installation and Repairing of Cable Penetration Firestops (CNS-1390.01-0098) into procedural format to be used by craft personnel.

Also, a Construction QA Procedure, Mechanical and Cable Penetration Firestops (M-53A), is used to inspect all firestop work against applicable specifications.

On February 20, 1985, during a random inspection of firestops, several conduits that penetrate fire barriers with their ends unsealed for fire protection were discovered. Craft personnel indicated that they did not trace down and seal conduits unless they terminated immediately beyond the penetration. A Nonconforming Item Report (NCI) was initiated and it was determined that this may be a generic problem.

A determination was made at that time that, although some conduits may not be sealed, all other fire barriers were still operable. On February 28, 1985, after further deliberations the remaining fire barriers were determined to not be operable because they did not meet specifications. This re-determination was made, and since this was potentially a generic problem, all fire barriers in the plant were declared inoperable until conduits could be traced down and sealed.

As soon as the inoperability determination was made, support for fire watches and firestop material installation in conduits was arranged. At about 1600 hours on February 28, 1985, work was started to trace down all conduits and install firestop seals in the ends. By 0130 hours on March 1, 1985, all conduits which penetrate fire walls were inspected and sealed as necessary. During this incident, all work on the conduits was performed under Work Request 1701MNT and Shutdown Request F177. A total number of 45 conduit ends were sealed.

During original procedure preparation and subsequent revisions, personnel failed to properly incorporate into CP469 the requirement to seal conduit ends, although CNS-1390.01-0098 requires this. Consequently, when the builder craft repaired firestops, they did not trace out conduit to seal the ends, but only sealed sleeves and conduits that terminated immediately at the fire barrier. Therefore, the cause of this incident was determined to be a Procedural Deficiency.

Also, QA Inspectors failed to inspect the ends of conduits for seals. QA Procedure M-53A requires QA to "perform necessary inspection to verify compliance with applicable specifications". This intent was not met for three reasons: 1) QA Personnel had an inadequate knowledge of applicable specifications, 2) QA assumed that CP469 had been written adequately and actually reviewed crafts work against CP469 rather than against CNS-1390.01-0098, and 3) QA assumed that electrical craft would seal the ends of conduits under specification CNS-1390.01-0121. This specification requires that electrical craft seal the ends of conduits for moisture protection purposes rather than fire protection purposes. However, under this specification, certain conduits are exempted from being sealed. Although some conduits were sealed by electrical craft, the sealing requirements per CNS-1390.01-0121 did not meet the fire protection sealing requirements of CNS-1390.01-0098 until changes were made to the specification during the incident. Therefore, before the incident, credit should not have been taken for sealing conduits under CNS-1390.01-0121. A cause of Personnel Error, is assigned as a contributing cause. To make the two specifications agree, Variation Notice 48411 was initiated. This allows credit to be taken for sealing performed under either specification.

CORRECTIVE ACTION

1) NCI CN-234 was written to document the conduit problem.

2) Work Request 1701MNT, Shutdown Request F177, and Variation Notice 48411 were written to allow work to be performed on conduits.

3) An inspection was conducted on all conduits that penetrate fire walls, 45 conduit ends sealed.

4) CP469 was revised to include sealing of conduit ends.

5) Affected personnel have been trained on Revision 12 of CP469.

6) Construction QA generated procedure M-53A-FP-20A. This procedure allowed documentation of QA inspection of the 45 conduit ends that were sealed on February 28, 1984, and will allow subsequent inspections of conduits to be documented.

7) Revision 13 of CP469 is to be issued to delineate responsibility for sealing conduit ends.

8) Training on Revision 13 of CP469 will be provided to all affected personnel.

9) Training on procedure M-53A-FP-20A will be provided to affected QA personnel.

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

SAFETY ANALYSIS

All conduits for which sealing deficiencies were identified were providing protection for the Auxiliary Building. The Auxiliary Building is equipped with a Fire Detection System. During the time of this incident, several fire detectors were inoperable. For these detectors, an hourly fire watch had been established. Therefore, all areas of the Auxiliary Building were being monitored for fire at all times. No fires were identified during this period.

The health and safety of the public were not affected by this incident.

DUKE POWER COMPANY
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HAL B. TUCKER
VICE PRESIDENT
NUCLEAR PRODUCTION

TELEPHONE
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March 22, 1985

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

Subject: Catawba Nuclear Station, Unit 1
Docket No. 50-413

Gentlemen:

Pursuant to 10 CFR Section (a) (1) and (d), attached is Licensee Event Report 413/85-13 concerning several conduit firestop seals which were not installed. This event was considered to be of no significance with respect to the health and safety of the public.

Very truly yours,

H.B. Tucker 1/85

Hal B. Tucker

RWO:slb

Attachment

cc: Dr. J. Nelson Grace, Regional Administrator
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Catawba Nuclear Station

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