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 2	0 5 0 0 0 4 1 4	1 OF 0 3

TITLE (4)
Missed Valve Retest Due To A Personnel Error

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 6	0 3	8 6	8 6	0 2 5	0 0	0 7	0 7	8 6	N/A	0 5 0 0 0
										0 5 0 0 0

OPERATING MODE (9)	5	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)			
POWER LEVEL (10)	0 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, Associate 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)	XX NO				

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

On June 3, 1986, it was discovered that the Steam Generator (S/G) D Main Feedwater (CF) Containment Isolation Bypass Control valve had not been retested after maintenance had been performed. The packing gland had been retorqued on May 14, 1986, and personnel had successfully completed a functional verification on May 17, 1986. The valve was then opened to provide reverse purge on S/G D. Following discovery the valve was satisfactorily retested on June 3, 1986. The Unit was in Mode 5, Cold Shutdown, when the incident was discovered. The Unit moved through Modes 1, Power Operation, 2, Startup, 3, Hot Standby, 4, Hot Shutdown, and 5 during the period that the valve was in service with the retest incomplete.

This incident is assigned Cause Code A, Personnel Error. The S/G D CF Containment Isolation Bypass Control valve was not recognized by responsible personnel as being a Technical Specification item. Also maintenance personnel signed the work request as complete without ensuring that the retest was complete.

This incident is reportable pursuant to 10CFR 50.73, Section (a)(2)(i)(B).

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FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
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TEXT (If more space is required, use additional NRC Form 366A's) (17)

BACKGROUND

Technical Specification (Tech Spec) Surveillance Requirement 4.6.3.1 states that a Containment Isolation valve shall be demonstrated operable prior to returning the valve to service after maintenance, repair or replacement work is performed on the valve or it's associated actuator, control or power circuit. The operability will be demonstrated by the performance of a cycling test and verification of stroke time in Modes 1, Power Operation, 2, Startup, 3, Hot Standby, and 4, Hot Shutdown. A Tech Spec Interpretation, dated October 4, 1984, further states that if a Containment Isolation valve is maintained closed, it is performing the function of isolation continually and therefore is considered operable. If for any reason a valve, not capable of meeting it's required closing time, is opened, it must be declared inoperable.

To minimize the potential for transients in the Steam Generator (S/G) preheater and in the feedwater piping connecting to the S/G, it is necessary to prevent the introduction of cold water to the S/G through the Main Feedwater (CF) (EIIS:SJ) Nozzle. Establishing a minimum required temperature throughout the CF System is accomplished by reverse purging a low flow from the CF Nozzles through CF Containment Isolation Bypass Control valves, and to the Condenser.

DESCRIPTION OF INCIDENT

On May 9, 1986, at 1330 hours, a Work Request was initiated to investigate and repair the packing leak of valve 2CF-87, S/G D CF Containment Isolation Bypass Control valve. During the planning process, the work request was designated as requiring functional verification and a retest.

On May 14, 1986, with the unit in Mode 2, work began on the work request. At approximately 1120 hours, the repairs per the work request were completed. On May 17, 1986, the functional verification was performed on valve 2CF-87. Valve 2CF-87 was placed back in service and opened to provide reverse purge on S/G D. On May 19, 1986, at 1150 hours, the work request was reviewed and signed as being complete.

On June 3, 1986, with the unit in Mode 5, it was recognized that valve 2CF-87 was a Tech Spec item. Valve 2CF-87 was retested satisfactorily later that day.

CONCLUSION

This incident is assigned Cause Code A, Personnel Error. When Unit Supervisor A reviewed the Work Request for clearance to begin work, he did not recognize valve 2CF-87 as a Containment Isolation valve. In the existing mode, Tech Spec 4.6.3.1 was applicable. Therefore the valve should have been declared inoperable and entered into the Tech Spec Action Item Logbook. When Maintenance Supervisor A reviewed the work request after the functional verification, he failed to notice that a retest was required and signed the work request as complete.

Maintenance Management Procedure 1.0 states that prior to signing a work request as complete, the work supervisor shall ensure that all retests and/or functional verifications are complete and acceptable.

A contributing cause to this incident is the deficiency of Station Directive 3.3.7, Work Request Preparation. The originator of the Work Request was using the Station Directive in the preparation of the work request. The Station Directive does not contain the necessary information and instructions required by all groups in the preparation and completion of work request.

The Tech Spec violation, as defined in Tech Spec Interpretation dated October 4, 1985, occurred when valve 2CF-87 was placed back in service and opened with the retest incomplete. This occurred between the time that the functional verification was performed and the time that Maintenance Supervisor A signed the work request as complete.

Failure to recognize inoperability has occurred previously in several incidents. There has been one previous incident in which the work supervisor signed off a work request without ensuring the retest was complete (see LER 413/84-15).

CORRECTIVE ACTION

Subsequent:

(1) Valve 2CF-87 was retested.

(2) This incident will be reviewed with all Supervisors during the next Supervisor's meeting.

(3) This incident will be reviewed with Maintenance Supervisor A, and supervisor training on Maintenance Management Procedure 1.0 will be developed and implemented.

(4) Station Directive 3.3.7 will be revised to incorporate all information from Maintenance Management Procedure 1.0, Work Request Preparation, needed by all Groups.

SAFETY ANALYSIS

Valve 2CA-188, Tempering Flow Isolation Valve, serves as the redundant isolation for the reverse purge line in case of failure of valve 2CF-87. During the time that valve 2CF-87 was opened with the retest incomplete, valve 2CA-188 was operable. Also, the subsequent retest of valve 2CF-87 yielded acceptable results, indicating that valve 2CF-87 was fully capable of providing containment isolation through this incident.

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

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

HAL B. TUCKER
VICE PRESIDENT
NUCLEAR PRODUCTION

TELEPHONE
(704) 373-4531

July 7, 1986

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

Subject: Catawba Nuclear Station, Unit 2
Docket No. 50-414

Dear Sir:

Pursuant to 10 CFR 50.73 Section (a) (1) and (d), attached is Licensee Event Report 414/86-25 concerning a Technical Specification violation caused by a missed retest due to a personnel error. 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

RWO/11/jgm

Attachment

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

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

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

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

NRC Resident Inspector
Catawba Nuclear Station

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NRC Form 374
(5-84)

U.S. NUCLEAR REGULATORY COMMISSION

Amendment No. 44

MATERIALS LICENSE

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and Title 10, Code of Federal Regulations, Chapter I, Parts 30, 31, 32, 33, 34, 35, 40 and 70, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, possess, and transfer byproduct, source, and special nuclear material designated below; to use such material for the purpose(s) and at the place(s) designated below; to deliver or transfer such material to persons authorized to receive it in accordance with the regulations of the applicable Part(s). This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, as amended, and is subject to all applicable rules, regulations and orders of the Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

Licensee	
1. Department of the Army Fitzsimons Army Medical Center and Medical Research and Nutrition Lab. 2. Aurora, Colorado 80045	In accordance with letter dated May 21, 1986 3. License number 05-00046-13 is amended in its entirety to read as follows: 4. Expiration date December 31, 1990 5. Docket or Reference No. 030-01233

6. Byproduct, source, and/or special nuclear material	7. Chemical and/or physical form	8. Maximum amount that licensee may possess at any one time under this license
A. Any byproduct material with atomic numbers 1 through 83	A. Any	A. Not to exceed 500 millicuries per radionuclide except: Hydrogen-3 5 curies Molybdenum-99 5 curies Technetium-99m 5 curies Iodine-125 1 curie Iodine-131 2 curies Xenon-133 2 curies
B. Any byproduct material with atomic numbers 4 through 84	B. Sealed sources	B. Not to exceed 2 curies per source

9. Authorized use:

A. and B. Medical research, diagnosis, and therapy. In vitro studies. Studies in laboratory animals.

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MATERIALS LICENSE
SUPPLEMENTARY SHEET

License number
05-00046-13

Docket or Reference number
030-01233

Amendment No. 44

CONDITIONS

10. Licensed material shall be used only at Fitzsimons Army Medical Center, 12101 East Colfax Avenue, Aurora, Colorado.

11. Licensed material shall be used by, or under the supervision of, individuals designated by the FAMC Radiation Control Committee.

12. A. (1) The sources specified in Item 7.B. shall be tested for leakage and/or contamination at intervals not to exceed 6 months. Any source received from another person which is not accompanied by a certificate indicating that a test was performed within 6 months before the transfer shall not be put into use until tested.

(2) Notwithstanding the periodic leak test required by this condition, any licensed sealed source is exempt from such leak tests when the source contains 100 microcuries or less of beta and/or gamma emitting material or 10 microcuries or less of alpha emitting material.

B. Any source in storage and not being used need not be tested. When the source is removed from storage for use or transfer to another person, it shall be tested before use or transfer.

C. The test shall be capable of detecting the presence of 0.005 microcurie of radioactive material on the test sample. If the test reveals the presence of 0.005 microcurie or more of removable contamination, the source shall be removed from service and decontaminated, repaired, or disposed of in accordance with Commission regulations. A report shall be filed within 5 days of the date the leak test result is known with the U.S. Nuclear Regulatory Commission, Region IV, 611 Ryan Plaza Drive, Suite 1000, Arlington, Texas 76011, ATTN: Chief, Radiological and Safeguards Programs Branch. The report shall specify the source involved, the test results, and corrective action taken. Records of leak test results shall be kept in units of microcuries and shall be maintained for inspection by the Commission. Records may be disposed of following Commission inspection.

D. Tests for leakage and/or contamination shall be performed by the licensee or by other persons specifically licensed by the Commission or an Agreement State to perform such services.

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License number
05-00046-13

Docket or Reference number
030-01233

Amendment No. 44

13. Sealed sources containing licensed material shall not be opened.

14. A. Detector cells containing titanium tritide foil shall only be used in conjunction with a properly operating temperature control mechanism which prevents foil temperatures from exceeding 225 degrees Centigrade.

    B. Detector cells containing scandium tritide foil shall only be used in conjunction with a properly operating temperature control mechanism which prevents foil temperatures from exceeding 325 degrees Centigrade.

15. Patients containing cobalt-60, cesium-137, or iridium-192 implants shall remain hospitalized until a source count and surveys made with an appropriate radiation detection instrument indicate that all implants have been removed. The results of these surveys shall be recorded and maintained for inspection by the Commission for 5 years from the time the implants are removed.

16. Patients containing iodine-131 for the treatment of thyroid carcinoma (or patients containing therapeutic quantities of gold-198) shall remain hospitalized until the residual activity is 30 millicuries or less.

17. The licensee is authorized to hold radioactive material with a physical half-life of less than 65 days for decay-in-storage before disposal in ordinary trash provided:

    A. Radioactive waste to be disposed of in this manner shall be held for decay a minimum of 10 half-lives.

    B. Before disposal as normal waste, radioactive waste shall be surveyed to determine that its radioactivity cannot be distinguished from background. All radiation labels will be removed or obliterated.

    C. Generator columns shall be segregated so that they may be monitored separately to ensure decay to background levels prior to disposal.