

Tennessee Valley Authority, Post Office Box 2000, Soddy-Daisy, Tennessee 37379-2000

R.J. Adney
Site Vice President
Sequoyah Nuclear Plant

August 8, 1996

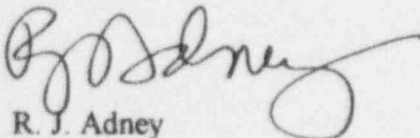
U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

Gentlemen:

TENNESSEE VALLEY AUTHORITY - SEQUOYAH NUCLEAR PLANT (SQN)
UNITS 1 AND 2 - DOCKET NOS. 50-327 AND 50-328 - FACILITY OPERATING
LICENSES DPR-77 AND DPR-79 - LICENSEE EVENT REPORT (LER) 50-327/96008

The enclosed report provides details concerning the discovery of a quarterly backseat/closure test that was not performed in accordance with American Society of Mechanical Engineers Section XI as required by Technical Specification Limiting Condition for Operation 4.0.5. This report is being submitted in accordance with 10 CFR 50.73 (a)(2)(i)(B) as a condition prohibited by technical specifications.

Sincerely,



R. J. Adney

Enclosure
cc: See page 2

9608140226 960808
PDR ADOCK 05000327
S PDR

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U.S. Nuclear Regulatory Commission

Page 2

August 8, 1996

Enclosure

cc (Enclosure):

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U.S. Nuclear Regulatory Commission
Region II
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30323-2711

LICENSEE EVENT REPORT (LER)(See reverse for required number of
digits/characters for each block)ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS
MANDATORY INFORMATION COLLECTION REQUEST: 50.0
HRS. REPORTED LESSONS LEARNED ARE INCORPORATED
INTO THE LICENSING PROCESS AND FED BACK TO INDUSTRY.
FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO
THE INFORMATION AND RECORDS MANAGEMENT BRANCH (T-
6 F33), U.S. NUCLEAR REGULATORY COMMISSION.

FACILITY NAME (1)

Sequoyah Nuclear Plant (SQN) Unit 1

DOCKET NUMBER (2)

05000327

PAGE (3)

1 OF 7

TITLE (4)

A quarterly backseat/closure test on five check valves on each unit was not performed as required by the American Society of Mechanical Engineers (ASME) Section XI in-service valve testing program basis document.

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 NAME	DOCKET NUMBER	
07	09	96	96	-- 008	-- 00	08	08	96	Sequoyah, Unit 2	05000328	
									FACILITY NAME	DOCKET NUMBER	
									NA	05000	
OPERATING MODE (9)		1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 6: (Check one or more) (11)								
			20.2201(b)			20.2203(a)(2)(v)			X	50.73(a)(2)(i)	50.73(a)(2)(viii)
POWER LEVEL (10)		100	20.2203(a)(1)			20.2203(a)(3)(i)				50.73(a)(2)(ii)	50.73(a)(2)(x)
			20.2203(a)(2)(i)			20.2203(a)(3)(ii)				50.73(a)(2)(iii)	73.71
			20.2203(a)(2)(ii)			20.2203(a)(4)				50.73(a)(2)(iv)	OTHER
			20.2203(a)(2)(iii)			50.36(c)(1)				50.73(a)(2)(v)	Specify in Abstract below or in NRC Form 366A
			20.2203(a)(2)(iv)			50.36(c)(2)				50.73(a)(2)(vii)	

LICENSEE CONTACT FOR THIS LER (12)

NAME

Steve D. Gilley, Compliance Licensing Engineer

TELEPHONE NUMBER (Include Area Code)

(423) 843-7427

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDOS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDOS

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 July 9, 1996, Units 1 and 2 were in power operation at approximately 100 percent power. It was discovered that a missed surveillance had occurred for five safety injection system check valves on each unit. These valves had not been tested in accordance with the ASME Section XI in-service valve testing program basis document for the second 10-year interval as required by Technical Specification (TS) 4.0.5. When the program basis document was revised for the second 10-year interval, a quarterly backseat/closure test was added for these check valves to test the check valves in the closed position. The requirement for testing these check valves in the closed position was not incorporated into a test procedure; therefore, the test was not performed. Upon the discovery of this condition, a test procedure was written, valve testing was performed, and the five check valves on each unit were found to be acceptable. The root cause of this event was personnel error in that individuals working for the Technical Support organization failed to verify that implementing procedures were prepared for each valve and test identified in the ASME Section XI valve program basis document. Corrective actions included a verification to ensure that the valve testing program basis document requirements are included in test procedures. No other problems were identified that affected operability.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

FACILITY NAME (1)	DOCKET	LER NUMBER (6)			PAGE (3)
SQN Unit 1	05000327	YEAR 96 --	SEQUENTIAL NUMBER 008 --	REVISION NUMBER 00	2 of 7

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

I. PLANT CONDITIONS

Units 1 and 2 were in power operation at approximately 100 percent.

II. DESCRIPTION OF EVENT**A. Event:**

On July 9, 1996, it was discovered that five safety injection system (EISS Code BQ) check valves on each unit were not being tested in accordance with the American Society of Mechanical Engineers (ASME) Section XI in-service valve testing program as required by Technical Specification (TS) 4.0.5. When the program basis document was revised for the start of the second 10-year interval, a quarterly backseat/closure test was added for these check valves. The requirement for testing was not incorporated into a test procedure; therefore, the check valve testing was not performed.

The subject check valves (five on each unit) are located inside containment in the discharge piping for the high-head injection portion of the emergency core cooling system (ECCS). The purpose of these valves is to prevent the loss of the ECCS inventory in an accident that requires ECCS injection and subsequent swapper to the containment sump. In this scenario, these check valves would backseat and prevent the loss of the ECCS inventory through the pipebreak. TS LCOs 3.5.2.e and 3.6.2.1 a.3 and b.3 require operable flow paths to supply ECCS and containment spray. If the subject check valves are inoperable, both trains of ECCS and containment spray are inoperable, and the actions of LCOs 3.5.2 and 3.6.2.1 cannot be met. Failure to meet the action of LCOs 3.5.2 and 3.6.2.1 places both units in LCO 3.0.3. Since this entry into LCO 3.0.3 was the result of a missed surveillance, the provisions of Surveillance Requirement (SR) 4.0.3 allow the action requirements to be delayed up to 24 hours to allow the surveillance to be completed.

Upon the discovery of this condition, a test procedure was written, valve testing was performed, and the five check valves on each unit were found to be acceptable.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

FACILITY NAME (1)	DOCKET	LER NUMBER (6)			PAGE (3)
SQN Unit 1	05000327	YEAR 96 --	SEQUENTIAL NUMBER 008 --	REVISION NUMBER -- 00	3 of 7

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

B. Inoperable Structures, Components, or Systems that Contributed to the Event:

None.

C. Dates and Approximate Times of Major Occurrences:

October 23, 1995 The ASME Section XI valve program basis document was issued. The document required ASME in-service valve testing of check valve Nos. 63-581, 586, 587, 588, & 589 (for both units) in the open and closed positions.

December 15, 1995 The second 10-year interval for the ASME Section XI program was initiated.

December 31, 1995 The development of procedures was completed for the valves in the database, but a verification of program basis requirements versus implementing procedures had not been completed. As a result, test procedures were written for these valves for other tests, but those procedures did not capture the requirement to perform a quarterly backseat/closure test.

July 9, 1996 During the review of valve testing for development and implementation of a nonintrusive testing process, it was discovered that five check valves on each unit were not being tested in the closed position in accordance with the ASME Section XI program basis document. Units 1 and 2 entered TS LCO 3.0.3 as a result of the failure to comply with TS Surveillance Requirement 4.0.5.

July 10, 1996 The five check valves on each unit were tested in the closed position in accordance with a newly written test procedure. Based on the test results, the check valves were found to be acceptable, and each unit exited TS LCO 3.0.3.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

FACILITY NAME (1)	DOCKET	LER NUMBER (6)			PAGE (3)
SQN Unit 1	05000327	YEAR 96 --	SEQUENTIAL NUMBER 008 --	REVISION NUMBER 00	4 of 7

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

July 15, 1996

A review was completed that compared the ASME Section XI program basis document requirements with the implementing test procedures. No additional problems were found.

D. Other Systems or Secondary Functions Affected:

None.

E. Method of Discovery:

During the review of valve testing for development and implementation of a nonintrusive testing process, it was discovered that five check valves on each unit were not being tested in the closed position in accordance with the ASME Section XI program basis document.

F. Operator Actions:

The appropriate TSs were entered for both units.

G. Safety System Responses:

There were no safety system responses required for this event.

III. CAUSE OF THE EVENT**A. Immediate Cause:**

The immediate cause of this event was the failure to perform the required surveillance test on five safety injection system check valves on each unit. The required testing was not performed because a test procedure to implement the ASME Section XI program basis requirement had not been written.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

FACILITY NAME (1)	DOCKET	LER NUMBER (6)			PAGE (3)
SQN Unit 1	05000327	YEAR 96 --	SEQUENTIAL NUMBER 008 --	REVISION NUMBER -- 00	5 of 7

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

B. Root Cause:

The root cause of this event was personnel error in that individuals working for the Technical Support organization failed to verify that implementing procedures were prepared for each valve and test identified in the ASME Section XI valve program basis document.

IV. ANALYSIS OF THE EVENT

The subject check valves are located inside containment in the discharge piping for the high-head injection portion of the ECCS. The purpose of these valves is to prevent the loss of the ECCS inventory in an accident that requires ECCS injection and subsequent swapover to the containment sump. In this scenario, these check valves would backseat and prevent the loss of the ECCS inventory through the pipe break.

SR 4.0.5 requires that in-service inspections of ASME Code Class 1, 2, and 3 components be conducted in accordance with ASME Section XI. The design basis document required that these valves be tested in the closed position on a quarterly frequency. The test verifies that these check valves backseat. In the event of an accident that requires ECCS injection and swapover to the containment sump, TSs require that a source of water be capable of supplying ECCS and containment spray. In a postulated accident where the piping were to fail outside the polar crane wall or outside containment, ECCS inventory would be lost if the check valves did not seat properly. This would result in the loss of both trains of ECCS and containment spray. Upon discovery of the missed surveillance, the valves were tested in the closed position and met their acceptance criteria and therefore would have been able to perform their design function in the event of an accident. Therefore, the event did not adversely affect the health and safety of plant personnel or the general public.

V. CORRECTIVE ACTIONS**A. Immediate Corrective Actions:**

A test procedure was written and performed on the ten check valves in question. The valves were found to meet their acceptance criteria. A verification that the ASME Section XI in-service valve testing program document requirements were included in implementing test procedures was completed. There were no additional instances found where operability was affected as a result of the failure to perform testing.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

FACILITY NAME (1)	DOCKET	LER NUMBER (6)			PAGE (3)
SQN Unit 1	05000327	YEAR 96 --	SEQUENTIAL NUMBER 008 --	REVISION NUMBER -- 00	6 of 7

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

B. Corrective Actions to Prevent Recurrence:

An evaluation of other ASME Section XI program basis requirements versus implementing procedures was performed for ASME Section XI manual valves, pumps, pressure tests, snubbers, 10 CFR 50 Appendix J testing, check valves, safety/relief valves, and power-operated valves/stroke time testing. This review did not identify any additional instances where components were not operable as a result of ASME Section XI test requirements not being met.

In order to enhance employee development, this event may be used in the continuing training program for engineers as an example of the importance of verification. Lessons learned from this event will be reviewed with the appropriate managers in the Engineering organization.

The appropriate disciplinary actions have been taken for the involved personnel.

VI. ADDITIONAL INFORMATION**A. Failed Components:**

None.

B. Previous LERs on Similar Events:

A review of previous reportable events was conducted back to 1993 which encompasses the time when changes were being made in preparation for the second 10-year interval. The review did not identify any previous similar events. Although there were several instances where surveillances were missed, none of these was the result of a test procedure not being written to incorporate the design basis requirements. LER 50-327/92026 described a problem in which ASME Section XI pressure tests had not been performed as required by TS. It was concluded that the cause was the lack of a well defined program for implementation of Section XI. Corrective actions focused on the review of remaining activities in the first ten year interval and a structured program to schedule and track tests. Recurrence control would not have prevented the present condition from occurring.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

FACILITY NAME (1)	DOCKET	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
SGN Unit 1	05000327	96 --	008 --	00	7 of 7

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

VII. COMMITMENTS

Lessons learned from this event will be reviewed with the appropriate managers in the Engineering organization by August 30, 1996.