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R.J. Adney  
Site Vice President  
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January 2, 1997

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

Gentlemen:

TENNESSEE VALLEY AUTHORITY - SEQUOYAH NUCLEAR PLANT (SQN)  
UNIT 1 - DOCKET NO. 50-327 - FACILITY OPERATING LICENSE NO. DPR-77 -  
LICENSEE EVENT REPORT (LER) 50-327/96012

The enclosed report provides details concerning two events where the surveillance requirements were not performed as required by technical specifications. This event is being reported in accordance with 10 CFR 50.73(a)(2)(i) as a condition prohibited by technical specifications.

Sincerely,



R. J. Adney

Enclosure

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U.S. Nuclear Regulatory Commission

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Enclosure

cc (Enclosure):

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## 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,  
WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK

FACILITY NAME (1)

Sequoyah Nuclear Plant (SQN) Unit 1

DOCKET NUMBER (2)

05000327

PAGE (3)

1 OF 9

TITLE (4)

Missed surveillances on cold leg accumulator valves and missing data sheet in surveillance package.

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
03	30	96	96	-- 012 --	00	01	02	97	NA	NA
									FACILITY NAME	DOCKET NUMBER
									NA	NA
									FACILITY NAME	DOCKET NUMBER
									NA	NA

OPERATING MODE (9)	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)									
	20.2201(b)		20.2203(a)(2)(v)		xx		50.73(a)(2)(i)		50.73(a)(2)(viii)	
POWER LEVEL (10)	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

S. D. Gilley, 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 NPRDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS

## 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 December 3, 1996, at approximately 1128 Eastern Standard time (EST), with Unit 1 in Mode 1 at approximately 100 percent reactor power it was discovered that the two cold leg accumulator sample isolation valves (1-FSV-43-34 and 1-FSV-43-35) were inoperable due to a missed surveillance. These valves had been tagged out and power was removed with the valves in the closed position to support a modification. When the surveillance was due, these valves were logged as deficiencies since they were tagged under the hold order. When the surveillance test was not performed the valves became inoperable and the appropriate Limiting Condition for Operation (LCO) should have been entered. However, the valves were in the closed position with power removed which was the position required by the action statement. When the time came to take the monthly cold leg accumulator boron sample, power was restored to the valves and the valves were opened to allow the sample to be taken. Over a period of 8 months the valves were opened nine times in order to take required samples. Following discovery, both valves were tested and successfully completed their stroke time test.

On December 4, 1996, during the investigation of this event, a second event was discovered where the surveillance requirements were not fulfilled for eighteen valves on Unit 1 (two of which are the isolation valves discussed above). A data sheet was missing from a test package for the February 26, 1996 performance and was not discovered until the investigation of December 4, 1996. The root cause for both of these events was determined to be failure to follow procedure.

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

## I. PLANT CONDITIONS

Unit 1 was in Mode 1 at approximately 100 percent power.

## II. DESCRIPTION OF EVENT

A. Event:

On December 3, 1996, at approximately 1128 Eastern Standard time (EST), with Unit 1 in Mode 1 at approximately 100 percent reactor power it was discovered that the two cold leg accumulator sample isolation valves 1-FSV-43-34 and 1-FSV-43-35 (EIS Code V) were inoperable due to the lack of performance of the required valve stroke time surveillance. These valves had been tagged out and power was removed with the valves in the closed position to support a modification to the sampling system. When it came time to perform the quarterly valve stroke surveillance, the tags were not removed and the valves were not tested. The valves were operable at the time they were tagged but later became inoperable when the surveillance test was not performed. While the valves were inoperable the appropriate Limiting Condition for Operation (LCO) was not entered. However, the valves were in the closed position with power removed which was the position required by the action statement. Controls were not established to prevent the valves from being opened without performing the delinquent surveillance. When the time came to take the monthly cold leg accumulator boron sample, power was restored to the valves and the valves were opened to allow the sample to be taken. Over a period of 8 months the valves had been opened nine times in order to take required samples. Following discovery of the missed surveillance, both valves had their stroke time test performed. 1-FSV-43-35 successfully completed the stroke time test. 1-FSV-43-34 successfully completed the stroke time test after a limit switch was replaced to correct a problem with the indicating light for the closed position. This maintenance did not affect the stroke time of the valve.

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On December 4, 1996, during the investigation of this event, a second event was discovered where the surveillance requirements were not fulfilled for eighteen valves (EIS Code V) on Unit 1. A data sheet was missing from a test package for the February 26, 1996 performance and was not discovered until the investigation of December 4, 1996.

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

None.

**C. Dates and Approximate Times of Major Occurrences:**

February 26, 1996 The 1-SI-SXV-000-201.0 package which should have included the necessary data sheet for the eighteen valves was begun. This package also contained data sheets for other valves. The eighteen valves are on a single data sheet.

February 28, 1996 The package was signed off as complete and routed to the Section XI engineer for review of stroke times.

March 21, 1996 Valves 1-FSV-43-34 and 1-FSV-43-35 are added to a hold order in support of a modification. The valves are in the closed position with power removed.

March 28, 1996 A portion of the modification work is completed which would allow these two valves (1-FSV-43-34 and 1-FSV-43-35) to be removed from the hold order. Operations personnel decide to continue to control the valves under the hold order.

March 29, 1996 Temporary lift of hold order (1-HO-96-586) to allow sampling of cold leg accumulators.

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March 30, 1996 Valve 1-FSV-43-35 exceeded the timeframe in which the quarterly stroke time test was required to be performed. The time was exceeded because the February 26, 1996 performance was not a complete performance due to the missing data sheet.

April 22, 1996 Temporary lift of hold order (1-HO-96-586) to allow sampling of cold leg accumulators.

May 20, 1996 Temporary lift of hold order (1-HO-96-586) to allow sampling of cold leg accumulators.

May 21, 1996 Testing is completed for 16 of the 18 valves listed on the data sheet that was missing from an earlier performance. These 16 valves successfully passed their stroke time test. The other two valves (1-FSV-43-34 and 1-FSV-43-35) were not tested because they were tagged out on a hold order.

May 24, 1996 1-FSV-43-34 and 1-FSV-43-35 were not stroked and a deficiency was logged in the test package because the test was not performed. (This is an incorrect use of the test deficiency program.) No LCO was entered. The test package notation indicated that no LCO was entered because the valves were in their post accident required condition.

June 21, 1996 Temporary lift of hold order (1-HO-96-586) to allow sampling of cold leg accumulators.

July 15, 1996 Temporary lift of hold order (1-HO-96-586) to allow sampling of cold leg accumulators.

August 12, 1996 Temporary lift of hold order (1-HO-96-586) to allow sampling of cold leg accumulators.



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August 16, 1996 1-FSV-43-34 and 1-FSV-43-35 were not stroked as required by technical specifications because they were still tagged. The deficiency number continued to be logged in the test package.

September 9, 1996 Temporary lift of hold order (1-HO-96-586) to allow sampling of cold leg accumulators.

October 7, 1996 Temporary lift of hold order (1-HO-96-586) to allow sampling of cold leg accumulators.

November 4, 1996 Temporary lift of hold order (1-HO-96-586) to allow sampling of cold leg accumulators.

November 13, 1996 1-FSV-43-34 and 1-FSV-43-35 were not stroked because they were still tagged. The deficiency number continued to be logged in the test package.

December 3, 1996 In conjunction with a request to open the valves to support sampling activities, operations personnel recognized the need to perform the stroke time test. The clearance was released on 1-FSV-43-34 and 1-FSV-43-35 to support performance of the stroke time test package for these valves. Valve 1-FSV-43-35 successfully passed the stroke time test. Valve 1-FSV-43-34 indicator light for the closed position did not operate properly. Valve limit switch was replaced and the valve was retested on December 6, 1996 and successfully passed the stroke time test.

December 3, 1996 SQ963096PER was written on the valves being inoperable and being used to obtain samples, without performing the required surveillances.

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December 4, 1996 As part of the investigation on these two valves, earlier performances of the stroke time test were reviewed. This review identified an earlier performance of valve stroke time tests on February 26, 1996 that was missing a data sheet. The missing data sheet contained these two valves along with sixteen others for a total of eighteen. SQ963105PER was written on the missed surveillance on the 18 valves.

D. Other Systems or Secondary Functions Affected:

None.

E. Method of Discovery:

The senior reactor operator questioned valve operability on December 3, 1996 when a request was made to temporarily lift the hold order so that a sample could be taken.

During the investigation of the two system 43 valves which had not been stroke time tested, earlier performances of the stroke time test were reviewed. It was during this review that the February 26, 1996 performance was reviewed and it was discovered that the data sheet containing these two valves along with 16 others was missing.

F. Operator Actions:

For the case of the two system 43 valves, the clearance was released and the surveillances were performed. Both valves were tested and successfully completed their stroke time tests.

For the case of the missing data sheet containing the 18 valves, all 18 valves were tested and successfully passed their stroke time test.



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**G. Safety System Responses:**

No safety system response occurred, nor was one required.

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

The immediate cause for the event involving the two system 43 valves was that LCO's were not being entered when the surveillance was not successfully performed.

The immediate cause for the event involving the missed stroke time test for the 18 valves was a missing data sheet in the test package.

**B. Root Cause:**

The root cause for failing to perform the required surveillance on the two system 43 valves was failure to follow procedure in that the test deficiency process was used improperly. The procedural requirements for test deficiencies do not allow use of a deficiency for a valve that could not be tested because the valve was tagged. The attempt to utilize the test deficiency process allowed the valves to become inoperable due to missed surveillances. When the surveillances were missed the appropriate technical specification action statements required for continued plant operation were not entered.

The root cause for the event involving the missing data sheet was the failure of Operations personnel to identify that the package was not complete as required by plant procedures. A contributing factor was inattention to detail on the part of the Section XI engineer and the Operations SI coordinator in that they also failed to identify that the surveillance was not a complete performance.

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## IV. ANALYSIS OF THE EVENT

In both cases described in this report, there was a period of time when the valves in question were not being stroke time tested as required. However, in both cases the valves were tested both before and after that period of time and successfully completed their stroke time tests. Although one valve (1-FSV-43-34) required the replacement of a limit switch prior to successfully completing the test, that maintenance did not affect the ability of the valve to close, nor did it affect the time required to close. The valves could have performed their intended functions during the time period in question. Therefore, there were no adverse consequences to the health and safety of plant personnel or the general public as a result of this event.

## V. CORRECTIVE ACTIONS

A. Immediate Corrective Actions:

1-FSV-43-34 and 1-FSV-43-35 were tested in accordance with the required surveillance instructions. The surveillance test was successfully completed on 1-FSV-43-35. The surveillance test was also successfully completed on 1-FSV-43-34 following maintenance to replace the limit switch.

Open test deficiencies were reviewed and no other inappropriate uses of the test deficiency program were identified.

Appropriate licensed personnel were instructed that the deficiency process is not to be used for components which are not tested and management expectations were communicated for ensuring that test packages are complete.

Open hold orders on technical specification/safety related equipment were reviewed to ensure that a similar problem does not exist. This review did not identify any other instances where technical specification/safety related equipment was tagged under a hold order and as a result the surveillance was missed.

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Disciplinary actions have been taken with the appropriate personnel.

**B. Corrective Actions to Prevent Recurrence:**

Conduct of testing retraining will be provided to the appropriate personnel on or before April 4, 1997.

**VI. ADDITIONAL INFORMATION**

**A. Additional Actions**

Benchmarking of the surveillance program is planned to identify potential process improvements.

**B. Failed Components:**

None.

**C. Previous LERs on Similar Events:**

A review of previous LERs revealed several instances where the surveillance time interval had been exceeded. None of these were attributed to misuse of the test deficiency process. Two instances were identified that involved missing data sheets (LER 50-327/90007 and 50-327/87068). In the case of LER 50-327/90007 the problem occurred because of the 'B' train did not get scheduled. The corrective action was to begin scheduling separate trains independently. In the second LER the corrective action was to change a procedure to provide requirements for verification of completed instructions. The event described by this report would not have been prevented by these corrective actions.

**VII. COMMITMENTS**

Conduct of testing retraining will be provided to the appropriate personnel on or before April 4, 1997.