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Ken Powers  
Vice President, Sequoyah Nuclear Plant

April 11, 1994

U.S. Nuclear Regulatory Commission  
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Gentlemen:

TENNESSEE VALLEY AUTHORITY - SEQUOYAH NUCLEAR PLANT UNITS 1 AND 2 -  
DOCKET NOS. 50-327 AND 50-328 - FACILITY OPERATING LICENSES DPR-77 AND  
DPR-79 - LICENSEE EVENT REPORT (LER) 50-327/94003

The enclosed LER provides details concerning two inadequate surveillance  
instructions that resulted in a failure to comply with technical  
specifications.

This event is being reported in accordance with 10 CFR 50.73(a)(2)(i)(B)  
as an event that resulted in an operation or condition prohibited by  
technical specifications.

Sincerely,

Ken Powers

Enclosure  
cc: See page 2

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LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Sequoyah Nuclear Plant (SQN), Unit 1  
DOCKET NUMBER (2) | PAGE (3) |  
050003 | 2 | 7 | 10 | 0 | 7

TITLE (4)  
Two Inadequate Surveillance Instructions Resulted in a Failure to Comply With Technical Specifications (TSs)

EVENT DAY (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)															
MONTH	DAY	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAMES			DOCKET NUMBER(S)													
0	3	1	0	9	4	9	4	0	0	3	0	0	0	3	2	8								
0	3	1	0	9	4	9	4	0	0	3	0	0	0	4	1	9	4	0	5	0	0	0	1	1

OPERATING MODE (9) | 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(a)(1)(i)	50.36(c)(1)	50.73(a)(2)(iv)	73.71(b)
				20.405(a)(1)(ii)	50.36(c)(2)	50.73(a)(2)(v)	73.71(c)	
				20.405(a)(1)(iii)	xx 50.73(a)(2)(i)	50.73(a)(2)(vii)	50.73(a)(2)(viii)(A)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
				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
K. E. Meade, Compliance Licensing	6   1   5   8   4   3   -   7   7   6   6

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) |

YES (If yes, complete EXPECTED SUBMISSION DATE) | X | NO

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

On March 10 and 14, 1994, with Unit 1 in Mode 5 at approximately 120 degrees Fahrenheit and 50 pounds per square inch gauge and Unit 2 in Mode 1 at approximately 100 percent thermal power, errors were identified in two separate surveillance instructions (SIs). The errors resulted in the failure to comply with two TS surveillance requirements. Both of the errors were associated with the Operations department SIs. The cause of the errors were inadequate procedure-revision reviews. The corrective action for these conditions included a 100 percent review of the 105 Operations department SIs to ensure technical adequacy. The review identified no additional technical errors.

LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATION

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)		
		YEAR	NUMBER	NUMBER			
Sequoyah Nuclear Plant (SQN), Unit 1		1994	03	03	00	00	02

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

I. PLANT CONDITIONS

For both of the below described conditions, Unit 1 was in Mode 5 with the reactor coolant system (RCS) at approximately 120 degrees Fahrenheit (F) and 50 pounds per square inch gauge (psig); Unit 2 was at approximately 100 percent rated thermal power.

II. DESCRIPTION OF EVENT

The following report will provide details concerning two separate reportable events. Both events involve inadequate surveillance; therefore, they are being combined under one LER.

A. Events

1. On March 14, 1994, Operations personnel aligned the upper-containment radiation monitor to lower containment. The lower-containment radiation monitor had been declared inoperable. A review of the affected technical specification (TS) surveillance requirements (SRs) determined that a conflict existed between two surveillance instructions (SIs) and a TS SR.

TS SR 4.4.6.2.1.a requires the monitoring of the lower-containment atmosphere particulate radioactivity monitor at least once every 12 hours. The RCS unidentified leakage measurement SI implements this SR. This SI requires shiftly monitoring of the lower-containment atmosphere particulate radioactivity monitor. The SI, however, indicates that if the acceptance criteria for monitoring the lower-containment atmosphere particulate radioactivity monitor cannot be met, performance of the RCS water inventory balance SI can be used to fulfill the TS SR. TSs do not allow this substitution. TSs only allow monitoring of the lower-containment atmosphere particulate radioactivity monitor. Therefore, this condition is being reported in accordance with 10 CFR 50.73.a.2.i.B as an operation prohibited by TSs.

2. On March 10, 1994, a self-assessment review by the Technical Support department concluded that a TS SR was not being completely fulfilled by the applicable SI.

TS SR 4.8.1.1.2.a.3 requires each diesel generator set to be demonstrated operable by verifying that the fuel transfer pump starts and transfers fuel from the storage system to the engine-mounted fuel tank once every 31 days. This SR was only being verified on a quarterly basis during performance of the American Society of Mechanical Engineers (ASME) Section XI testing.

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Sequoyah Nuclear Plant (SQN), Unit 1	0500032794	--	003	--	003	OF	07

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

A review of this condition identified a procedure revision in 1991 that resulted in the subject fuel transfer pump testing being changed from monthly to quarterly. The procedure revision was initiated to upgrade the procedure to the new format. During the review process for this procedure revision, a reviewer noted that the fuel transfer pumps were already being tested during the quarterly Section XI testing. The reviewer concluded that the Section XI test met the requirements of the TS SR and deleted the requirement to test the fuel transfer pump during the monthly diesel generator (D/G) testing. This error was identified during the Technical Support self-assessment review. The condition is being reported in accordance with 10 CFR 50.73.a.2.i.B as an operation prohibited by TSs.

B. Inoperable Structures, Components, or Systems That Contributed to the Event  
None.

C. Dates and Approximate Times of Major Occurrences

Event 1

April 1987

The RCS unidentified leakage measurement SI was revised. This revision allowed the substitution of an RCS water inventory balance for monitoring of the lower-containment atmosphere particulate radioactivity monitor if the acceptance criteria for the RCS unidentified leakage measurement SI cannot be met.

March 14, 1994

Operations personnel aligned the upper-containment particulate radiation monitor to lower containment. The lower-containment particulate radiation monitor had been declared inoperable. A review of the applicable TS SR and SIs identified the subject error.

Event 2

1991

A revision to the monthly D/G SI deleted the requirement to verify that the fuel transfer pump starts and transfers fuel from the storage system to the engine-mounted fuel tank. A quarterly performance of a Section XI test was thought to fulfill the TS SR requirement.

February 1994

A Technical Support department self-assessment team conducted a review of various items. The review evaluated several SIs to ensure compliance with TSs.

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Sequoyah Nuclear Plant (SQN), Unit 1	050003 27 19 4	--	0	0	3	--	0	0	0	4	0	7

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

March 10, 1994                      The results of the subject review indicated that the D/G fuel transfer pumps were not being run in accordance with TS 4.8.1.1.2.a.3.

D. Other Systems or Secondary Functions Affected

None.

E. Method of Discovery

Event 1

Operations personnel aligned the upper-containment radiation monitor to lower containment as the result of the lower-containment radiation monitor being declared inoperable. Operations personnel reviewed the affected TS SR and SIs as a result of this new alignment. This review discovered the error in the RCS unidentified leakage-measurement SI.

Event 2

The Technical Support department was performing a self-assessment review of several different items. As part of the review, several SIs were evaluated for TS compliance. This error was discovered during the Technical Support self-assessment.

F. Operator Action

No operator response was required for these conditions.

G. Safety System Responses

No safety system responses were required as a result of these conditions.

III. CAUSE OF EVENT

A. Immediate Cause

Event 1

The RCS unidentified leakage-measurement SI allowed the substitution of an RCS water inventory balance SI for monitoring of the lower-containment atmosphere particulate radioactivity monitor if the acceptance criteria for the leakage-measurement SI was not met.

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Sequoyah Nuclear Plant (SQN), Unit 1	0500032794	00	3	0	0	5	07

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

Event 2

TS SR 4.8 1.1.2.a.3 requires that the D/G fuel transfer pumps be capable of starting and transferring fuel from the storage system to the engine-mounted fuel tank. The TS SR is required to be performed once every 31 days. SQN was only performing the SI that satisfies this SR once every quarter.

B. Root Cause

Event 1

The personnel who performed the procedure revision that allowed the substitution of an RCS water inventory balance for monitoring the lower-containment atmosphere particulate radioactivity monitor did not adequately evaluate TSs. The substitution of the RCS water inventory balance was conservative and would serve as a lower-containment leakage check; however, TSs do not allow the substitution. TSs require the lower-containment particulate radioactivity monitor to be checked once every 12 hours. Another leakage detection method cannot be substituted for that check.

Event 2

The personnel who performed the procedure revision that deleted the monthly requirement to perform the subject SI did not adequately evaluate TSs. The personnel believed that the performance of the quarterly Section XI test on the D/G fuel transfer pumps satisfied the subject SR. Therefore, SQN did not meet TS requirements.

C. Contributing Factors

None.

IV. ANALYSIS OF THE EVENT

Event 1

TS SR 4.4.6.2.1 indicates that the reactor coolant leakage shall be determined to be within allowable limits by checking several indicators. One of the indicators that is checked is the lower-containment atmosphere particulate radioactivity monitor. This monitor is required to be checked once every 12 hours. The purpose of this check is to ensure that the lower-containment atmosphere particulate radioactivity monitor is not increasing in counts, thus indicating a potential leak in the lower containment of the reactor building.

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Sequoyah Nuclear Plant (SQN), Unit 1	05-003279-4	--	003	--	0	0	6 OF 7

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

The procedure utilized to fulfill this SR had been revised to allow a water inventory balance of the RCS to be substituted for the lower-containment atmosphere particulate radioactivity monitor check. The RCS water inventory balance is another method of checking for a potential leak in lower containment. The RCS water inventory balance is a detailed review of all the "ins" and "outs" of the RCS. This check is a much more detailed review of the RCS for leakage than the check of a radiation monitor. Therefore, it would be conservative to perform an RCS water inventory balance as a substitute for checking the lower-containment atmosphere particulate radioactivity monitor.

Event 2

TS SR 4.8.1.1.2.a.3 requires the D/G fuel transfer pump to start and transfer fuel from the storage system to the engine-mounted fuel tank once every 31 days. The purpose of this requirement is to ensure that sufficient fuel oil will be available to start and run the D/Gs.

SQN was performing an ASME Section XI test of these pumps once every quarter. Testing of these pumps over the last three years (the time period that the SR was only being performed quarterly) has not indicated any failures. Further, after each monthly D/G test, Operations personnel refill the engine-mounted fuel tank on each diesel. This step is not delineated in any SI; however, it is common practice to ensure that the diesel fuel tanks are full after each SI performance.

V. CORRECTIVE ACTION

A. Immediate Corrective Action

Event 1

The RCS unidentified-leakage SI has been revised to delete the statement that the RCS water inventory balance can be used to fulfill the subject TS SR.

Event 2

The D/G SI was revised to include a monthly verification of the D/G fuel transfer pumps in accordance with TS SR 4.8.1.1.2.a.3.

B. Action to Prevent Recurrence

Event 1

A review of all Operations' SIs, a total of 105, was performed to ensure technical adequacy of the instructions. The review verified that each SI satisfied the SR referenced in the applicable procedure. The review discovered no additional technical errors.



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Sequoyah Nuclear Plant (SQN), Unit 1	0500032794	--	003	--	000	7	07

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

Event 2

The review of the Operations SIs specified in the corrective action for Event 1 will serve as recurrence control for this event as well.

An additional review of approximately five percent of the other 1,381 SIs was performed by the Quality Assurance department. This review was performed to ensure the technical adequacy of the sample population. No additional technical errors that could have resulted in missed surveillances were discovered.

A review of the site procedure revision process was performed. The review concluded that the process is adequate. The errors associated with the report involved individuals failing to follow the procedure revision process.

VI. ADDITIONAL INFORMATION

A. Failed Components

None.

B. Previous Similar Events

A review of previous similar reportable events identified 36 LERs that have been written since 1989 as a result of missed surveillances. Twelve of the LERs have been written since 1992. Of those twelve, eight involved Operations' SIs. Therefore, a comprehensive review of Operations' SIs was performed to ensure that no additional technical errors existed in those procedures.

VII. COMMITMENTS

None.