



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

March 22, 1994

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20 55

Gentlemen:

TENNESSEE VALLEY AUTHORITY - SEQUOYAH NUCLEAR PLANT UNIT 1 - DOCKET
NO. 50-327 - FACILITY OPERATING LICENSE DPR-77 - LICENSEE EVENT REPORT
(LER) 50-327/94002

The enclosed LER provides details concerning the closure of containment
isolation valves and the actuation of an engineered safety feature (ESF),
resulting from an inadvertent loss of nonessential control air.

This event is being reported in accordance with 10 CFR 50.73(a)(2)(iv) as
an event that resulted in the actuation of an ESF.

Sincerely,

Ken Powers
Site Vice President
Sequoyah Nuclear Plant

Enclosure
cc: See page 2

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cc (Enclosure):

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LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Sequoyah Nuclear Plant (SQN), Unit 1 | DOCKET NUMBER (2) | PAGE (3) | 050003 27 10 04

TITLE (4) Engineered Safety Feature Actuation Resulting From a Loss of Nonessential Air Supply

EVENT DAY (5) | LER NUMBER (6) | REPORT DATE (7) | OTHER FACILITIES INVOLVED (8) | FACILITY NAMES | DOCKET NUMBER(S) | 050003 27 10 04

OPERATING MODE (9) | THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following)(11) | 20.402(b) | 20.405(c) | XX 50.73(a)(2)(iv) | 73.71(b) | POWER LEVEL (10) | 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) | 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 | C. H. Whittemore, Compliance Licensing | 615 843-7210

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 February 23, 1994, at 0415 Eastern standard time, the Unit 1 nonessential control-air header was inadvertently isolated, causing several containment isolation valves to shut, which resulted in an engineered safety feature actuation. The event occurred during the restoration portion of the performance of a surveillance instruction. Testing personnel were realigning the system valves to their normal position. However, the sequence in which this was conducted isolated the nonessential control-air header. Operations personnel quickly determined the cause of the event and restored the system air pressure. The root cause of this event was inadequate guidance on how to sequentially perform the required operations on components contained within a table in an instruction or procedure. A training letter/standing order will be issued describing the proper sequence for manipulating the valves contained within a table in the performance section of an instruction or procedure.

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TEXT CONTINUATION

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)				PAGE (3)				
		YEAR	NUMBER	REVISION	NUMBER					
Sequoyah Nuclear Plant (SON), Unit 1	050003 27 94	0	0	2	0	0	0	2	0	4

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

I. PLANT CONDITIONS

Unit 1 was in Mode 5.

II. DESCRIPTION OF EVENT

A. Event

On February 23, 1994, at 0415 Eastern standard time (EST), the Unit 1 nonessential control-air header (EIIS Code LF) was inadvertently isolated. Several nonessential air-operated components in containment that are required to change positions, as designed to ensure safe shutdown or to mitigate the consequences of an accident, traveled to their fail-safe position. This resulted in several containment isolation valves (CIVs) (EIIS Code JM) traveling shut in an engineered safety feature (ESF) actuation. The isolation of the nonessential control-air header occurred during the restoration portion of the performance of a surveillance instruction (SI). This SI was being used to verify the operability of check valves in the control-air header. To test the check valves (EIIS Code V), an air bypass line is opened around the check valves to maintain control air to isolation valves and components in containment. After successfully testing the valves and during the restoration portion of the SI, testing personnel were retrieving the caution tags from the air bypass line. Testing personnel erroneously closed the air bypass line valves before reestablishing the normal air supply to the header. Operations personnel quickly determined the cause of the event and dispatched an operator to restore the system air pressure and to restore the CIVs to their normal position.

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

None.

C. Dates and Approximate Times of Major Occurrences

- | | |
|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| February 23, 1994
at 0415 EST | The test director removed the caution-order cards after successfully testing the check valves and proceeded to restore the system to its normal configuration. The test director inadvertently isolated the header supplying nonessential control air to the components in containment. The isolation of the header caused the actuation of an ESF. |
| February 23, 1994
at 0416 EST | The main control room received numerous alarms. Operations personnel recognized the alarms, and valve closures were associated with the testing being conducted on the nonessential air system check valves. |

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Sequoyah Nuclear Plant (SQN), Unit 1	0500032794	SEQUENTIAL	REVISION						
		YEAR	NUMBER	NUMBER					
		0	0	2	0	0	0	3	OF 4

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

February 23, 1994 Operations personnel restored system air pressure and
at 0427 EDT effected equipment to normal.

D. Other Systems or Secondary Functions Affected

The inboard air-operated CIVs for the upper and lower containment radiation monitors and various valves on the glycol portion of the ice condenser system traveled closed as a result of the loss of air.

E. Method of Discovery

The condition was annunciated on the main control room panels.

F. Operator Action

The main control room operators immediately entered the appropriate abnormal operating instruction, determined that the condition was associated with the nonessential air header check valve surveillance test, and took the appropriate steps to restore the nonessential control-air system.

G. Safety System Responses

The inboard CIVs failed closed to their respective loss-of-air position.

III. CAUSE OF EVENT

A. Immediate Cause

The immediate cause of this event was the loss of nonessential control air to containment components.

B. Root Cause

The root cause of this event was inadequate guidance on how to sequentially perform the required operations on components contained within a table in an instruction or procedure.

C. Contributing Factors

None.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)						PAGE (3)				
		SEQUENTIAL		REVISION		YEAR	NUMBER	NUMBER				
		NUMBER	NUMBER									
Sequoyah Nuclear Plant (SQN), Unit 1	0500032794	--	0	0	2	--	0	0	0	4	0	4

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

IV. ANALYSIS OF THE EVENT

The operability of safety-related components required for safe shutdown and accident mitigation was not affected by this event. The automatic isolation of the control-air system performed as required, and nonessential air-supplied components failed, as designed on a loss of control air, to their safety-related position. Therefore, this event did not adversely affect the health or safety of plant personnel or the general public.

V. CORRECTIVE ACTION

A. Immediate Corrective Action

Operators evaluated the condition and returned the appropriate valves to their normal positions, restoring the system air pressure.

B. Action to Prevent Recurrence

A training letter/standing order will be issued to the appropriate site personnel, describing the proper sequence for manipulating valves or other equipment contained within a table in the performance section of an instruction or procedure.

VI. ADDITIONAL INFORMATION

A. Failed Components

None.

B. Previous Similar Events

There were no previous reportable events associated with inadequate procedures as the root cause of ESFs with corrective actions that could have or should have prevented this event.

VII. COMMITMENT

A training letter/standing order will be issued to the appropriate site personnel, describing the proper sequence for manipulating valves or other equipment contained within a table in the performance section of an instruction or procedure. This will be accomplished by April 1, 1994.