



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

January 23, 1995

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

Gentlemen:

TENNESSEE VALLEY AUTHORITY - SEQUOYAH NUCLEAR PLANT UNIT 1 - DOCKET
NO. 50-327 - FACILITY OPERATING LICENSE DPR-77 - LICENSEE EVENT REPORT
(LER) 50-327/94017

The enclosed LER provides details concerning an auxiliary building isolation and auxiliary building gas treatment system start as a result of high radiation in the spent fuel pool area. This report is being reported in accordance with 10 CFR 50.73(a)(2)(iv) as an event that resulted in the automatic actuation of engineered safety features.

Sincerely,

R. J. Adney
Site Vice President

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 2 7 10F 0 4							
TITLE (4) Auxiliary Building Isolation (ABI) as a Result of High Radiation in the Spent Fuel Area																			
EVENT DAY (5)				LER NUMBER (6)				REPORT DATE (7)				OTHER FACILITIES INVOLVED (8)							
				SEQUENTIAL REVISION				FACILITY NAMES				DOCKET NUMBER(S)							
MONTH DAY YEAR YEAR				NUMBER NUMBER				MONTH DAY YEAR				050003 2 8							
1 2 2 9 4 9 4				0 1 0 0 0 1 2 3 9 5				050003 1											
OPERATING MODE (9) THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5: (Check one or more of the following)(11)																			
(9) 1				20.402(b)				20.405(c) XX				50.73(a)(2)(iv) 73.71(b)							
POWER				20.405(a)(1)(i)				50.36(c)(1)				50.73(a)(2)(v) 73.71(c)							
LEVEL				20.405(a)(1)(ii)				50.36(c)(2)				50.73(a)(2)(vi) OTHER (Specify in							
(10) 1 0 0				20.405(a)(1)(iii)				50.73(a)(2)(i)				50.73(a)(2)(vii) Abstract below and in							
				20.405(a)(1)(iv)				50.73(a)(2)(ii)				50.73(a)(2)(viii)(B) Text, NRC Form 366A)							
				20.405(a)(1)(v)				50.73(a)(2)(iii)				50.73(a)(2)(x)							
LICENSEE CONTACT FOR THIS LER (12)																			
NAME												TELEPHONE NUMBER							
J. W. Proffitt, Compliance Licensing												AREA CODE							
												6 1 5 8 4 3 - 6 6 5 1							
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) X NO																			

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

On December 22, 1994, at 1410 Eastern standard time, a B-train ABI and start of the B-train auxiliary building gas treatment system (ABGTS) occurred. The initiation was the result of high radiation in the spent fuel pool area. During modification activities associated with the spent fuel pool storage rack replacement, a vacuum hose was being removed from the spent fuel pool. During the removal of the hose, an air pocket developed in the hose. During attempts to remove the air pocket, the hose came into close proximity of the radiation monitor. The hose was within sufficient proximity of the radiation monitor and dose rate of sufficient magnitude for the monitor to actuate. The high radiation signal cleared after placing the hose back in the spent fuel pool. After verifying the cause of the high radiation signal, Operations returned the auxiliary building ventilation system to normal. The cause of the event was the failure to take adequate precautions to ensure that the activities associated with the spent fuel pool would not result in an ABI.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

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

I. PLANT CONDITIONS

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

II. DESCRIPTION OF EVENT

A. Event

On December 22, 1994, at 1410 Eastern standard time (EST), a B-train auxiliary building isolation (ABI) (EIIS Code BD) and start of the B-train auxiliary building gas treatment system (ABGTS) (EIIS Code BH) were automatically initiated. The initiation was the result of the high radiation in the spent fuel pool area.

During modification activities associated with the spent fuel pool storage rack replacement, a vacuum hose was removed from the spent fuel pool. During the removal of the hose, an air pocket developed in the hose. During attempts to remove the air pocket, the hose came into close proximity of the radiation monitor. The hose was within sufficient proximity of the radiation monitor (EIIS Code RM) and of sufficient dose rate to exceed the radiation monitor setpoint. The high radiation signal cleared after placing the hose back in the spent fuel pool. After verifying the cause of the high radiation signal operations returned the auxiliary building ventilation system to normal.

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

None.

C. Dates and Approximate Times of Major Occurrences

December 22, 1995 at 1410 EST An ABI and ABGTS start were initiated by a high radiation signal from the spent fuel pool area radiation monitor.

December 22, 1995 at 1739 EST ABGTS was stopped and the auxiliary building ventilation system was returned to normal

D. Other Systems or Secondary Functions Affected

None.

E. Method of Discovery

The ABI alarm was annunciated in the main control room. Also, the assistant shift operations supervisor (ASOS) directing the refuel floor activities observed a shift in the ventilation system and radiation monitor alarm and notified the Unit 1 reactor operator of the event.

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F. Operator Actions

Upon receipt of the ABI, Operations personnel determined the cause of the event, then returned the auxiliary building ventilation system to normal.

G. Safety System Responses

The equipment required to operate after the automatic ABI and start of AGBTS performed as expected.

III. CAUSE OF EVENT

A. Immediate Cause

The ABI and ABGTS were automatically initiated as a result of the high radiation in the close proximity of the spent fuel pool radiation monitor.

B. Root Cause

The root cause of this event was the failure to take adequate precautions to ensure that the activities associated with the spent fuel pool would not result in an ABI. The work order that controls the modification activities contained precautions to be taken to prevent an ABI actuation during removal of materials (e.g., fuel rack, diffuser piping, and supports); however, the work order did not mention temporary equipment such as a vacuum hose.

C. Contributing Factors

There were no contributing factors associated with this event.

IV. ANALYSIS OF EVENT

Plant equipment required to operate after the automatic ABI and start of ABGTS performed as expected. The high radiation signal was the result of a contaminated vacuum hose being allowed to get in close proximity to the radiation monitor. Radiological control measures and coverage of the spent fuel area were being performed during the modification activities to ensure that personnel were not unnecessarily subjected to a high radiation condition. As a result of the event, a review was performed which determined that the radiological conditions did not result in overexposure of the involved individuals. Therefore, it can be concluded that there were no adverse consequences to plant personnel or to the public as a result of this event.

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

V. CORRECTIVE ACTIONS

A. Immediate Corrective Actions

The personnel involved with the spent fuel pool rack replacement have been briefed on the event and the precautions that need to be observed to prevent recurrence.

B. Corrective Action to Prevent Recurrence

The work order was revised to specify actions to be taken during removal of any items from or around the spent fuel pool. This should reduce the possibility of unanticipated high radiation areas near the radiation monitors.

VI. ADDITIONAL INFORMATION

A. Failed Components

None.

B. Previous Similar Events

There were three previous similar reportable events identified: 50-327/84016, 50-327/84021, and 50-327/84065. These events were associated with cleaning of the spent fuel transfer canal. After cleaning activities were completed materials used in performing the activities were brought in close proximity of the spent fuel pool radiation monitors and resulted in an ABI. Additionally, the setpoint on the radiation monitors was at 10 mrem/hour. The corrective actions included raising the radiation monitors setpoint to 50 mrem/hour and revising procedures to advise personnel of the potential of causing an ABI when moving radioactive materials in the spent fuel pool area. Since implementation of the corrective actions, there had been no previous ABIs associated with spent fuel pool area activities. This ABI occurred because the personnel involved failed to recognize that the vacuum hose could become contaminated, potentially resulting in an ABI.

VII. COMMITMENTS

None.