

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Sequoyah, Unit 1	DOCKET NUMBER (2) 0 5 0 0 0 3 2 7 1	PAGE (3) 1 OF 0 4
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Increased Airborne Activity Level In The Auxiliary Building Resulted In The Suspension Of Fire Watch Patrol and Subsequent Noncompliance With Technical Specification 3.7.12

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 NAMES
09	08	88	88	03	1	09	22	88	Sequoyah, Unit 2
								DOCKET NUMBER (5)	
								0 5 0 0 0	

OPERATING MODE (9) 5	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5. (Check one or more of the following) (11)				
POWER LEVEL (10) 0 0 0	20.402(b)	20.408(c)	50.73(a)(2)(iv)	73.71(b)	
	20.408(a)(1)(iii)	50.38(a)(1)	50.73(a)(2)(v)	73.71(c)	
	20.408(a)(1)(iv)	50.38(a)(2)	50.73(a)(2)(vi)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)	
	20.408(a)(1)(v)	XX 50.73(a)(2)(ii)	50.73(a)(2)(vii)(A)		
	20.408(a)(1)(vi)	50.73(a)(2)(ix)	50.73(a)(2)(vii)(B)		
	20.408(a)(1)(vii)	50.73(a)(2)(iii)	50.73(a)(2)(x)		

LICENSEE CONTACT FOR THIS LER (12)		TELEPHONE NUMBER
NAME	AREA CODE	
J. D. Smith, Plant Operations Review Staff	6 1 5	8 7 1 0 - 1 6 1 6 7 1 2

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS

SUPPLEMENTAL REPORT EXPECTED (14)	EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE) <input checked="" type="checkbox"/> NO				

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

On September 8, 1988 with unit 1 in mode 5 (cold shutdown) and unit 2 in mode 1 at 70 percent power, the hourly fire watch through the 669 foot elevation of the Auxiliary Building was suspended from 0622 EDT to 0815 EDT because of an unexpected increase in the airborne radioactivity in that area. The fire watch patrol was required for action (a) to Limiting Condition for Operation (LCO) 3.7.12 because of a breached fire barrier. The breaching permit had been issued on September 6, 1988 to repair flush bolts on fire door A-26.

The immediate cause of this event was the increased level of airborne radioactivity in the Auxiliary Building. This condition presented an overriding personnel safety concern and access to the area was subsequently restricted. The cause of the airborne condition was a venting of the unit 1 volume control tank followed by opening of the waste gas system for maintenance on the strainers to the waste gas compressors. Recently installed Beta Max whole body friskers provided Radcon personnel an early warning of an increased airborne activity level due to their increased sensitivity. The small increase in airborne was noted when six Nuclear Security Officers set off Beta Max alarms when exiting the Auxiliary Building. Workers were allowed to return to the Auxiliary Building at 0815 EDT when all air samples indicated radioactivity levels less than the minimum detectable levels. Fire Door A-26 was returned to service on September 8 at 1330 EDT. No further action is required.

Handwritten initials/signature

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PDR ADOCK 05000327
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TEXT (If more space is required, use additional NRC Form 365A's) (17)

DESCRIPTION OF EVENT

On September 8, 1988, with unit 1 in mode 5 (cold shutdown) and unit 2 in mode 1 (70 percent power, 2235 psig, 568 degrees F), the hourly fire watch through the 669 foot elevation of the Auxiliary Building (EIS code NF) could not be completed because of an unexpected increase in airborne radioactivity in that area. The subject firewatch was required by action statement (a) to Limiting Condition for Operation (LCO) 3.7.12 because of a breached fire barrier (permit number 7237). This action statement requires verification of the operability of area fire detectors (EIS code IC) and the establishment of an hourly fire watch patrol whenever a fire barrier penetration has been determined to be nonfunctional. Contrary to this requirement, however, the hourly fire watch for this fire breach was suspended from 0622 EDT to 0815 EDT on September 8, 1988.

On September 6, 1988, fire breach permit 7237 was issued to repair the flush bolts on fire door A-26 which was incapable of complete closure. As required by LCO 3.7.12, the operability of the required fire detectors was verified and hourly fire watch patrols were established. A small increase in airborne activity was noted when six Nuclear Security Officers set off Beta Max whole body friskers alarms when exiting the Auxiliary Building on September 8, 1988. Radiological Control (RADCON) personnel recommended to the Shift Operations Supervisor (SOS) that the Auxiliary Building be evacuated as a conservative measure due to an unexplained increase in airborne radioactivity as indicated by area frisker and continuous air monitors (CAMs) which were approximately 100 cpm above background. At 0622 EDT, the SOS evacuated the Auxiliary Building which was subsequently posted as an airborne area while air samples were taken for analysis. As a result, fire protection personnel did not enter the 669 foot elevation of the Auxiliary Building and were unable to visually inspect the area in which the breached fire barrier was located (i.e., doorway to the 669 foot elevation penetration room and pipe gallery).

At no time during this event was the level of radioactivity high enough to generate an Auxiliary Building Isolation signal (EIS code IE). Personnel were allowed to reenter the Auxiliary Building at 0815 EDT when all air samples indicated no detectable activity. Fire door A-26 was returned to service and breaching permit 7237 was closed on September 8, 1988 at 1330 EDT.

CAUSE OF EVENT

The immediate cause of this event was the failure to complete the required hourly firewatch due to an increase in the level of airborne radioactivity in the Auxiliary Building. This condition represented an overriding personnel safety concern and access to the area was subsequently restricted. As a result, fire protection personnel were unable to complete the required fire watch patrol for breaching permit 7237.

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

Subsequent investigations indicate that the cause of the slight increase in airborne activity was the venting of the unit 1 Volume Control Tank (VCT) to the Waste Gas System (EIS code WE) and subsequent opening of the waste gas system for maintenance on the strainers to the waste gas compressors (Preventive Maintenance Instructions 1612-077 and 1613-077).

From 0430 to 0435 EDT on September 8, 1988, waste gas compressor (WGC) "B" was running due to the venting of the unit 1 VCT (the VCT is a holding and processing tank for the chemical and volume control system - EIS code CB). Approximately 10 minutes later, routine cleaning maintenance was performed on the WGC's strainer. Air samples taken in the WGC Room at the time the waste gas compressor system was opened subsequently indicated a maximum permissible concentration fraction of 0.09 of the limits allowed by 10 CFR 20. This maintenance was completed at approximately 0555 EDT. At 0600 EDT, the recently installed Beta Max whole body friskers alarmed when six Nuclear Security Officers exited the Auxiliary Building. The increased sensitivity of the Beta Max provided an early warning to RADCON personnel of the increased activity and conservative measures were taken to protect personnel due to the fact that other activities were ongoing that had the potential to increase the airborne radioactivity and a casual relationship was not immediately made between the waste gas compressor maintenance and the increased airborne radioactivity.

ANALYSIS OF EVENT

This event is being reported in accordance with 10 CFR 50.73, paragraph a.2.i.b, as an operation prohibited by the Plant's Technical Specifications.

The hourly fire watch patrols were being performed as required by LCO 3.7.12 for a breached fire barrier to the 669 penetration room/pipe gallery. Although this area was not visually inspected for potential fires during the interval from 0622 EDT to 0815 EDT on September 8, there was no degradation in the overall level of fire protection at the plant. Both sides of the breached fire barrier have operable automatic fire detection and fire suppression equipment. Thus, if a fire had occurred in this area, it would have been detected and suppressed by automatic and/or manual action.

The venting of the VCT provided a source of noble gas to the Waste Gas System. Air samples taken at the time of the Waste Gas Compressor strainer maintenance indicated only a small increase in the airborne activity level. As a precautionary measure, consistent with good radiological practices, the Auxiliary Building was evacuated when the Beta Max latter alarmed. At no time during this event was the level of radioactivity high enough to generate an Auxiliary Building Isolation signal and there was no detectable offsite release as a result of this event.

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

CORRECTIVE ACTION

Immediate action taken, while air samples were being taken to establish airborne levels, were to evacuate personnel as a conservative protective action. Personnel were allowed access to the Auxiliary Building when air samples showed no detectable activity. Fire breach permit 7237 was closed on September 8, 1988 when fire door A-26 was returned as a functional fire door. All actions are considered conservative and no further are considered necessary.

ADDITIONAL INFORMATION

There have been 22 previously reported occurrences of a failure to perform required fire watch patrols; however, three of these occurrences were caused by personnel access restrictions resulting from high activity levels. These three occurrences are detailed in SQRO-50-327/88028, 86001, and Special Report 8G-11.

COMMITMENTS

None

0652Q

TENNESSEE VALLEY AUTHORITY
Sequoyah Nuclear Plant
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September 22, 1988

U. S. Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555

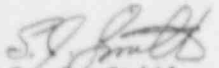
Gentlemen:

TENNESSEE VALLEY AUTHORITY - SEQUOYAH NUCLEAR PLANT UNIT 1 - DOCKET NO.
50-327 - FACILITY OPERATING LICENSE DPR-77 - REPORTABLE OCCURRENCE REPORT
SQRO-50-327/88031

The enclosed licensee event report provides details concerning an increased airborne activity level in the Auxiliary Building that resulted in the suspension of hourly fire watch patrols and subsequent noncompliance with Technical Specification 3.7.12. This event is being reported in accordance with 10 CFR 50.73, paragraph a.2.i.b.

Very truly yours,

TENNESSEE VALLEY AUTHORITY


S. J. Smith
Plant Manager

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