

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Sequoyah, Unit 1										DOCKET NUMBER (2) 0 5 0 0 0 3 2 7										PAGE (3) 1 OF 0 3									
TITLE (4) Auxiliary Building Ventilation Isolation																													

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										DOCKET NUMBER(S)																				
0 1	2 4	8 4	8 4	0 0 8	0 0	0 2	2 2	8 4											0 5 0 0 0																				
OPERATING MODE (9) 1			THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5: (Check one or more of the following) (11)																																				
POWER LEVEL (10) 1 0 0			20.402(b)										20.405(e)										X 50.73(a)(2)(iv)										73.71(b)						
			20.405(a)(1)(i)										50.36(e)(1)										50.73(a)(2)(v)										73.71(e)						
			20.405(a)(1)(ii)										50.36(e)(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)(ix)																

LICENSEE CONTACT FOR THIS LER (12)															TELEPHONE NUMBER														
NAME Glenn Duggin, Compliance Section Engineer															AREA CODE 6 1 5 8 7 0 - 6 1 4 6														

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)											
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDs		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDs	

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)

A high radiation alarm was actuated which caused an auxiliary building isolation (ABI) to occur. Investigation revealed two separate causes; the relieving of pressure (burping) in the volume control tank (VCT) and the overflowing of the condensate demineralizer waste evaporator (CDWE). Airborne radiation was not significantly above normal during this time.

The auxiliary building was evacuated, gas samples collected, airborne radiation areas posted, and the building cleaned as filtering permitted. No personnel were seriously contaminated, and any radiation released to the environment was well within technical specification limits.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

APPROVED OMB NO. 3150-0104
EXPIRES 8/31/85

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

This LER involves five separate incidents. The first auxiliary building ventilation isolation (ABI) occurred at 1550C on 01/24/84 while unit 1 was in mode 1 (100% power, 2235 psig, 578 degrees F) and was returned to service at 1741C on 01/24/84. The second ABI occurred at 1000C on 01/27/84 while unit 1 was in mode 1 (100% power, 2235 psig, 578 degrees F) and was returned to service at 1015C on 01/27/84. The third ABI occurred at 1020C on 01/27/84 while unit 1 was in mode 1 (100% power, 2235 psig, 578 degrees F) and was returned to service at 1040C on 01/27/84. The fourth ABI occurred at 1116C on 01/30/84 while unit 1 was in mode 3 (0% power, 2238 psig, 542 degrees F) and was returned to service at 1125C on 01/30/84. The fifth ABI occurred at 1147C on 01/30/84 while unit 1 was in mode 3 (0% power, 2238 psig, 542 degrees F) and was returned to service at 1257C on 01/30/84. All associated equipment and personnel responded and performed as expected during the above ABIs. In each case, the operator responded to the rad monitor alarm (RM-90-101) and saw the radiation monitor indicating high. Health Physics was notified and checked all continuous air monitors, background readers, and took general area air samples to determine the origin and level of radiation. Airborne radioactivity areas were posted in those areas that were higher than normal background. The building was cleaned up, returned to service, and posted areas removed within six hours.

The first three events occurred as a result of burping the VCT and draining the vent header loop seals. The waste gas compressor (WGC) was then started and pushed the fission gases and particulates in the vent header out into the auxiliary building causing the ABIs. The auxiliary building was evacuated and Health Physics was notified to check radiation monitor readings and collect grab samples to determine contamination levels and locate the source of airborne radiation. Radiation work permits (RWP) were issued to people going back into the building where airborne radioactivity areas were posted.

A few personnel were contaminated, but none were contaminated above 300 counts per minute (cpm). The continuous air monitors (CAM) were reading from 100 to 800 cpm above normal background. The auxiliary building gas treatment system (ABGTS) was used to clean the atmosphere. Many air samples were taken and general surveys were made during this time. After the air was cleaned up and radiation levels were normal, the posted airborne areas were removed. In the future, Health Physics (HP) and Operations will better coordinate burping the VCT and will check that the loop seals are intact before venting or running the waste gas compressor (WGC). The system has been pressure-tested in the past to check for leaks and both units will be checked again in their next refueling outages. Trends on the radiation monitor recorders will be closely monitored and personnel dispatched as appropriate to determine the level and source before the radiation levels are high enough to cause an ABI.

The fourth ABI probably occurred as a result of the condensate demineralizer waste evaporator (CDWE) vapor body bottoms overflowing. The CDWE operator had trouble with flow control of the vapor bottoms and some vapors were released. A waste gas decay tank (WGDT) was also being released at this time and the very windy conditions that existed could have blown some of the released gas back into the building, contributing to the airborne situation.

The fifth ABI occurred thirty one minutes after the fourth event above. The building was evacuated in the fourth event requiring the CDWE operator to leave his station. The fourth ABI also resulted in the isolation of the steam supply to the CDWE, and without operator attention, allowed some of the vapor body bottoms to overflow onto the floor. This resulted in the fifth ABI.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104

EXPIRES 8/31/85

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

In the fourth and fifth events, Health Physics was notified and evacuated the building to avoid exposure to personnel. Some personnel had slight contamination on their clothing. Some of the radiation monitors were reading 300-800 cpm over background. After radiation levels were returned to normal, the ventilation system was returned to normal and airborne posting was lifted.

A DCR has been issued to eliminate the isolation of the steam supply to the CDWE when an ABI occurs. This should prevent a similar event from causing the vapor bottoms to overflow onto the floor. Also, a maintenance request (MR) was written on the flow control valve to help prevent spillages from occurring. The wind blowing contaminants back into the building has not happened in the past, is considered an isolated case, and no corrective action is anticipated at this time.

In all of these events, personnel were only slightly contaminated and general area dose rates were less than 2 mrem/hour. The major isotopes have been RB-88, Xe-133, and some CS-138. All releases from the plant during these events were less than 1% of technical specification limits. Corrective actions have been initiated as listed above, and additional corrective actions that are identified will be taken as appropriate.

There was no effect upon public health or safety, and no plant safety margins were exceeded.

Previous occurrences - none.

TENNESSEE VALLEY AUTHORITY

Sequoyah Nuclear Plant
Post Office Box 2000
Soddy Daisy, Tennessee 37379

February 22, 1984

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

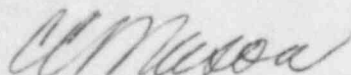
Gentlemen:

TENNESSEE VALLEY AUTHORITY - SEQUOYAH NUCLEAR PLANT UNIT 1 - DOCKET NO.
50-327 - FACILITY OPERATING LICENSE DPR-77 - REPORTABLE OCCURRENCE REPORT
SQRO-50-327/84008

The enclosed licensee event report provides details concerning the auxiliary building ventilation isolations (ABI) caused by airborne radiation in the auxiliary building. This event is reported in accordance with 10 CFR 50.73, paragraph a.2.iv.

Very truly yours,

TENNESSEE VALLEY AUTHORITY



C. C. Mason
Power Plant Superintendent

Enclosure
cc (Enclosure):

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NRC Inspector, NUC PR, Sequoyah

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