NRC Form 366
(9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/85

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Sequoyah, Unit 1	0 5 0 0 0 3 2 7	1 OF 0 2

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)
1 0	0 9	8 4	8 4	—	0 6 5	— 0 0	1 1	0 8	8 4	Sequoyah, Unit 2	0 5 0 0 0 3 2 8
											0 5 0 0 0

OPERATING MODE (9)	1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)			
POWER LEVEL (10)	1 0 0	20.402(b)	20.405(c)	X 50.73(a)(2)(iv)	73.71(b)
		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
Glenn B. Kirk, Compliance Section Engineer	AREA CODE 6 1 5 — 8 7 0 - 6 1 4 7

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)

Two auxiliary building isolation (ABI) events occurred on 10/09/84. Investigation revealed that mops and buckets, used to clean the transfer canal in preparation for the refueling outage, were carried too close to a spent fuel pool (SFP) radiation monitor. The increase in background radiation caused by the contaminated materials spiked the radiation monitor over its setpoint. Radiation levels from the spent fuel pool were not above normal during this time.

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FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Sequoyah, Unit 1	0 5 0 0 0 3 2 7	8 4	0 6 5	0 0	0 2 OF 0 2

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

Two separate auxiliary building isolation (ABI) events occurred on 10/09/84 with unit 1 in mode 1 (2235 psig, 578 degrees F) at 100 percent reactor power and unit 2 in mode 5 (0 psig, 110 degrees F). Both events occurred as a result of personnel carrying mops and buckets, used for cleaning of the transfer canal, too close to the spent fuel pool (SFP) radiation monitors. The first event occurred at 0307 CST when the material was taken near radiation monitor 0-RM-90-103, causing a 10 mR/hr spike of the monitor. The second event occurred at 0340 CST when the material was taken near radiation monitor 0-RM-90-102, causing a 55 mR/hr spike of the monitor.

The ABI signals were reset following each event. Personnel involved with moving the material have been instructed to notify Operations prior to moving contaminated material near these monitors. Health Physics personnel performed surveys of the spent fuel pool area and the material to verify that the mops and buckets had caused the ABIs. The possibility of a technical specification change is being pursued to increase the allowable isolation actuation setpoint above the present 15 mR/hr limit.

During recovery from the first ABI event, Operations personnel discovered the auxiliary building general exhaust and supply (ABGES) fans and the fuel handling exhaust (FHE) fans had either failed to trip on the ABI actuation or had restarted following the ABI trip signal. Further investigation revealed that the fans had tripped and then restarted.

The ABI actuation logic from SFP radiation monitors 0-RM-90-102 and 103 has been modified (see LER SQRO-50-327/84060) by addition of a one-second time delay to reduce the number of inadvertent ABIs due to monitor spikes. A spike with a magnitude just above the 15 mR/hr setpoint and a duration of approximately one-second essentially initiates and clears the ABI actuation signal at the same time.

With the FHE fan handswitch in "A-Auto", the FHE fan logic starts the opposite fan on loss of flow, provided no high radiation signal is present. The ABCES fans have a similar logic when their handswitch is in "A-P-Auto". A quick spike (approximately one-second in duration) just at the monitor setpoint will trip the fans for the ABI actuation, but since the high radiation signal clears at essentially the same time, the loss of flow logic makes up and the fans restart.

A spike of higher magnitude or longer duration (such as the second event) will cause the high radiation signal to remain long enough to prevent the fans from restarting on loss of flow.

An order has been issued to Operations personnel to place the ABGES fan handswitch in "A-Auto" for fans required to be running and in "Pull to Lock" for fans not required to be running. Additionally, the order requires the operators to verify the ABI lineup any time an ABI actuation occurs. Evaluation of the need for additional corrective action is presently underway, but may not be necessary since it is expected that an actual criticality event or dropped fuel assembly would generate a radiation signal of sufficient duration to preclude a situation similar to the first event.

The ABGES and FHE fans stopped as required during the second event. All other equipment and personnel performed as expected during both events. There was no effect on public health or safety.

Previous occurrences - SQRO-50-327/84016, 84021, 84037, and 84060.

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

November 8, 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-50-327/84065

The enclosed licensee event report provides details concerning two auxiliary building ventilation isolations. This event is reported in accordance with 10 CFR 50.73, paragraph a.2.iv.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

P. R. Wallace
Plant Manager

Enclosure
cc (Enclosure):

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NRC Inspector, NUC PR, Sequoyah

IE22
1/1