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)
Containment 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 5 0 0 0
0 1 2 0	8 4		8 4	- 0 0 3	- 0 0	0 2 1 7	8 4			0 5 0 0 0

OPERATING MODE (9)	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)			
1	20.402(b)	20.405(c)	X 50.73(a)(2)(iv)	73.71(b)
POWER LEVEL (10) 1 0 0	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
Glenn Duggin, Compliance Section Engineer	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 NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	
B	NA*	- - R I	G 0 6 3	N							

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 a containment ventilation isolation (CVI) to occur. Investigation revealed that a voltage spike occurred as a result of electromagnetic interference (EMI) which was probably generated by switch actuation when an alarm came in.

Radiation levels were not above normal during this time.

The spurious high radiation alarm was reset and the monitor was returned to service. Flow rates are being checked daily and filters changed to help prevent more spurious spikes. Also, filter paper that is on rolls will be checked to see if paper is close to running out.

*NA - Not available, IEEE 805-1983 still being printed.

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 0 3	— 0 0	0 2 OF 0 2

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

This LER involves two separate incidents. The first containment ventilation isolation (CVI) occurred at 1939C on 01/20/84 while unit 1 was in mode 1 (100% power, 2235 psig, 578 degrees F) and was returned to service at 1950C on 01/20/84. The second CVI occurred at 1015C on 01/29/84 while unit 1 was in mode 1 (same conditions) and was returned to service at 1050C on 01/29/84. All associated equipment and personnel responded and performed as expected during the CVI. The operator responded to the alarm (RM-90-106) and determined that the alarm was in fact caused by a spurious spike and not by a high radiation level. Maintenance personnel were notified to check the monitor, reset the alarm in the control room, and repair or reset the monitor. No equipment or other failure was found; therefore, the alarm was cleared and the radiation monitor was reset.

The plant manager has identified the problem of spurious actuations of CVIs as the plant's number one priority to resolve. A committee has been established involving the plant sections of Operations, Chemical Engineering, Instrument Maintenance, and Compliance, as well as Engineering Design. Meetings have been held with these personnel to determine possible causes and corrective actions. The alarms were caused by spurious signals on the radiation monitor which may have been caused by a combination of vibration and EMI. The exact cause of these spurious signals has not definitely been determined; however, several likely possibilities are being acted upon. The vibration and EMI problems were concluded because in the second event, the filter paper roll was found used up and the alarm actuation caused a spike. Bouncing and arcing of relay and switch contacts, alarm buzzer, timers, microswitches, and heliarc welding are known sources of EMI that can cause a detector spike. Some immediate corrective actions to prevent the spurious signals from occurring are mounting the switches on rubber mounts, hooking a recorder to the actuation channels to determine spurious signal origin, replacing stainless tubes to the switch with polyflow tubes, relocating of detector grounds, placing signal cable inside conduit. Worksheets will be finalized for precautions and coordination with Operations for change out of filters on the monitors. Operations will update procedures for daily surveillance of the monitors and actions to take for low flow. Procedures will be reviewed and revised if needed to add precaution when removing or returning a monitor to service. Instrument Maintenance will continue to evaluate effectiveness of the modification to the mounting of flow switches. Maintenance, Chemical, and Operations have been told, verbally and through procedures, to coordinate maintenance source checks and sample gathering so that the isolation signal can be blocked to prevent an unnecessary (not real) high radiation signal. These immediate actions have been initiated and most are complete. Long-term actions in process at this time include: (1) NCO will determine if a flow switch with sufficient deadband to reduce chattering at low flow is available and will initiate paperwork to change them out; (2) Instrumentation will add a time delay to the actuation signal; (3) NCO will evaluate and specify a filter for the AC cables to the monitors; (4) Engineering Design will begin preliminary work on implementing a time delay of CVI and also changing the flow alarm circuit from AC to DC power; and (5) NCO will evaluate the need to interlock CVI with purge air and vent dampers to inhibit CVI when dampers are closed. Some or all of these actions will be implemented as appropriate.

There was no effect upon public health or safety and no plant safety margins were exceeded. Radiation levels were not above normal during this time.

Previous occurrences - none.

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

February 17, 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-50-327/84003

The enclosed licensee event report provides details concerning the inadvertent containment building ventilation isolations caused by spurious spikes. 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):

James P. O'Reilly, Director
U.S. Nuclear Regulatory Commission
Suite 2900
101 Marietta Street, NW
Atlanta, Georgia 30303

Records Center
Institute of Nuclear Power Operations
Suite 1500
1100 Circle 75 Parkway
Atlanta, Georgia 30339

NRC Inspector, NUC PR, Sequoyah

IE22
1/1