

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Sequoyah, Unit 1										DOCKET NUMBER (2) 0 5 0 0 0 3 2 7 1 OF 0 2										PAGE (3) 1 OF 0 2	
TITLE (4) Control Room 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	1 4	8 4	8 4	0 0 4	0 0 0	2 1	0 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)			<input checked="" type="checkbox"/> 50.73(a)(2)(iv)			73.71(b)										
POWER LEVEL (10)		20.405(a)(1)(i)			50.36(c)(1)			<input type="checkbox"/> 50.73(a)(2)(v)			73.71(c)										
0 1 3 3		20.405(a)(1)(ii)			50.36(c)(2)			<input type="checkbox"/> 50.73(a)(2)(vii)			OTHER: (Specify in Abstract below and in Text, NRC Form 386A)										
		20.405(a)(1)(iii)			50.73(a)(2)(i)			<input type="checkbox"/> 50.73(a)(2)(viii)(A)													
		20.405(a)(1)(iv)			50.73(a)(2)(ii)			<input type="checkbox"/> 50.73(a)(2)(viii)(B)													
		20.405(a)(1)(v)			50.73(a)(2)(iii)			<input type="checkbox"/> 50.73(a)(2)(ix)													
LICENSEE CONTACT FOR THIS LER (12)																					
NAME Glenn E. Duggin, Compliance Section Engineer										TELEPHONE NUMBER AREA CODE 6 1 5 8 7 0 - 1 6 1 4 6											
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)																					
CAUSE	SYSTEM NA*	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS												
B		- I - R I	G 0 6 3	N																	
SUPPLEMENTAL REPORT EXPECTED (14)										EXPECTED SUBMISSION DATE (15)		MONTH	DAY	YEAR							
<input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE)										<input checked="" type="checkbox"/> NO											

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

A high radiation alarm was actuated which caused a control room isolation (CRI) to occur. Investigation revealed that a voltage spike may have occurred as a result of electromagnetic interference (EMI) which was probably generated by a switch actuation. Radiation levels were not above normal during this time.

The spurious high radiation alarm was reset and the monitor was returned to service. Flow switches have been mounted on shock absorbing rubber mounts and their flow rates are being checked daily and filters changed to help prevent more spurious spikes.

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

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO 3150-0104

EXPIRES 8/31/85

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
Sequoyah, Unit 1	0500032784	0	04	00	02	OF 02

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

The control room ventilation isolation (CRI) occurred at 0055C and again at 0120C on 01/14/84 while unit 1 was in mode 1 (33% power, 2235 psig, 559 degrees F). The control room ventilation system and radiation monitor were returned to service at 0130C on 01/14/84. All associated equipment and personnel responded and performed as expected during the CRI. The operator responded to the alarm (RM-90-125) 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, so the alarm was cleared and the radiation monitor was reset.

The plant manager has identified the problem of spurious actuations of building isolations 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 of other similar problems on radiation monitors made by the same manufacturer. 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, relocation of detector ground, and 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 presently under consideration are: (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 building isolations and also changing the flow alarm circuit from AC to DC power. Some or all of these actions will be implemented as appropriate.

There was no effect on 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 10, 1984

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

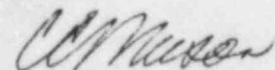
Gentlemen:

TENNESSEE VALLEY AUTHORITY - SEQUOYAH NUCLEAR PLANT UNIT 1 - DOCKET NO.
50-327 - FACILITY OPERATING LICENSE DPR-77 - REPORTABLE OCCURRENCE REPORT
SQRO-50-327/84004

The enclosed licensee event report provides details concerning the
inadvertent control room ventilation isolation caused by a spurious spike
on the radiation monitor. 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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