

TENNESSEE VALLEY AUTHORITY

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

January 31, 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-50-327/84001

The enclosed licensee event report provides details concerning the inadvertent containment ventilation isolations caused by spurious spikes on radiation monitor RM-90-112. 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
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Institute of Nuclear Power Operations
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NRC Inspector, NUC PR, Sequoyah

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LICENSEE EVENT REPORT (LER)

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

PAGE (3)

1 OF 02

TITLE (4)

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

OPERATING MODE (9)	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5: (Check one or more of the following) (11)																														
4	<table border="1"><tr><td>20.402(b)</td><td>20.405(c)</td><td>X</td><td>50.73(a)(2)(iv)</td><td>73.71(b)</td></tr><tr><td>20.405(a)(1)(i)</td><td>30.36(c)(1)</td><td></td><td>50.73(a)(2)(v)</td><td>73.71(c)</td></tr><tr><td>20.405(a)(1)(ii)</td><td>50.36(c)(2)</td><td></td><td>50.73(a)(2)(vii)</td><td>OTHER (Specify in Abstract below and in Text, NRC Form 386A.)</td></tr><tr><td>20.405(a)(1)(iii)</td><td>50.73(a)(2)(i)</td><td></td><td>50.73(a)(2)(viii)(A)</td><td></td></tr><tr><td>20.405(a)(1)(iv)</td><td>50.73(a)(2)(ii)</td><td></td><td>50.73(a)(2)(viii)(B)</td><td></td></tr><tr><td>20.405(a)(1)(v)</td><td>50.73(a)(2)(iii)</td><td></td><td>50.73(a)(2)(ix)</td><td></td></tr></table>	20.402(b)	20.405(c)	X	50.73(a)(2)(iv)	73.71(b)	20.405(a)(1)(i)	30.36(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 386A.)	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)	
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20.405(a)(1)(v)	50.73(a)(2)(iii)		50.73(a)(2)(ix)																												

LICENSEE CONTACT FOR THIS LER (12)		TELEPHONE NUMBER
NAME	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	MANUFAC. TURER	REPORTABLE TO NPDOS	CAUSE	SYSTEM	COMPONENT	MANUFAC. TURER	REPORTABLE TO NPDOS		
B	NA*	- I - R I G	0 6 1 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 containment vent isolation (CVI) to occur. Investigation revealed that a voltage spike may have occurred as a result of a clogged air filter causing a low flow alarm switch to actuate and generate some electromagnetic interference (EMI). 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 are being mounted on shock absorbing rubber mounts and their flow rates are being rechecked to help prevent more spurious spikes. Also, the prefilter paper is being replaced daily to help prevent a low flow alarm.

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

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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	—	001	—	00	2	OF 02

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

This LER involves five separate incidents. The first containment vent isolation (CVI) occurred at 1450C on 01/02/84 while unit 1 was in mode 4 (0% power, 600 psig, 300 degrees F), the second CVI occurred at 0830C on 01/05/84 while unit 1 was in mode 3 (0% power, 1750 psig, 544 degrees F), the third CVI occurred at 1025C on 01/08/84 while unit 1 was in mode 1 (34% power, 2235 psig, 557 degrees F), the fourth CVI occurred at 1546C on 01/12/84 while unit 1 was in mode 3 (0% power, 2100 psig, 518 degrees F), and the fifth CVI occurred at 1744C on 01/17/84 while unit 1 was in mode 1 (100% power, 2235 psig, 578 degrees F). In all five of these incidents, the radiation monitors were returned to service in from 10 to 35 minutes. All associated equipment operated normally during the CVIs. The operator responded to the annunciator (RM-90-112), 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 had the monitor reset when no equipment or other failure was found. All equipment and personnel responded and performed as expected.

Meetings were held with Maintenance, Operations, Chemical, and Compliance 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 the prefilter paper to the iodine channel was found clogged when the monitor was checked and found that the low flow alarm was in. The low flow alarm can generate EMI noise and vibration when it is actuated. 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, replacing stainless tubes to the switch with polyflow tubes, and revising procedures to verify sample flow requirements each shift. The prefilter paper is being changed out daily per a revised instruction to prevent the low flow alarm from actuating. Any filter will be changed if Operations finds a low flow indicated on a radiation monitor. Also, the flow alarm instrumentation is being checked for correct calibration. 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. They will be considered to be permanent corrections, unless another problem is isolated at which time appropriate corrective actions will be initiated.

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.