

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 5
---------------------------------------	--------------------------------------	----------------------

TITLE (4)  
Failure to Comply with Appendix R of 10 CFR

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	8	4	8	4	0	5	9	0	0	1	0	2	3	8	4	Sequoyah, Unit 2	0 5 0 0 0 3 2 8
1	0	0	8	4	8	4	0	5	9	0	0	1	0	2	3	8	4		0 5 0 0 0 3 2 8

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more of the following) (11):

OPERATING MODE (8) 1	20.402(b)	20.406(c)	50.73(a)(2)(iv)	73.71(b)
POWER LEVEL (10) 1 1 0 0	20.406(a)(1)(i)	50.36(a)(1)	50.73(a)(2)(v)	73.71(e)
	20.406(a)(1)(ii)	50.36(a)(2)	50.73(a)(2)(vi)	XX OTHER (Specify in Abstract below and in Text, NRC Form 365A)
	20.406(a)(1)(iii)	50.73(a)(2)(i)	50.73(a)(2)(vii)	
	20.406(a)(1)(iv)	XX 50.73(a)(2)(ii)	50.73(a)(2)(viii)(A)	
	20.406(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(viii)(B)	
20.406(a)(1)(vi)	50.73(a)(2)(iv)	50.73(a)(2)(ix)		

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
Michael R. Cooper, Compliance Section Engineer	6 1 5 8 7 1 0 1 6 1 4 1 6

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS

SUPPLEMENTAL REPORT EXPECTED (14)

<input type="checkbox"/> YES (if yes, complete EXPECTED SUBMISSION DATE)	<input checked="" type="checkbox"/> NO	EXPECTED SUBMISSION DATE (15)	MONTH DAY YEAR
--	--	-------------------------------	----------------

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

Following additional inspections of various safety-related systems at Sequoyah, interactions were found that were not in compliance with Appendix R of 10 CFR 50. Fire watches had already been established in this area due to commitments already made by TVA dealing with Appendix R. This fire watch satisfies requirements per action statement of Technical Specification 3.7.12 and will remain in effect till full compliance with Appendix R can be achieved. This report also contains details on RCP oil collection system which also does not meet 10 CFR 50 Appendix R requirements. This report is required per license condition 2.H, 10 CFR 50.73 (a)(2)(ii) and special report requirements of Technical Specification 3.7.12.

There was no effect on public health or safety.

Previous occurrences - four - SQRO-50-327/84046, SQRO-50-327/84049, SQRO-50-327/48051, and SQRO-50-327/84057.

8411030660 841023  
PDR ADOCK 05000327  
S PDR

JE22 1/1

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1)  Sequoyah, Unit 1	DOCKET NUMBER (2)  0   5   0   0   0   3   2   7   8   4   -   0   5   9   -   0   0   0   2	LER NUMBER (6)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	OF	0   5
		8   4   -	0   5   9   -	0   0   0		

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

Inspections at Sequoyah Nuclear Plant have identified the following items of non-compliance with Appendix R of 10 CFR 50. These inspections are part of an ongoing project to ensure compliance with Appendix R.

1. Units 1 and 2 - Certain areas of the plant requiring operator action for the safe shutdown of the plant were surveyed using Abnormal Operating Instruction (AOI) 27, Control Room Inaccessibility. Areas requiring lights for operation of equipment specified by the shutdown logic are currently being evaluated. Also, the battery packs at Sequoyah are not rated for eight (8) hours.

2. The Reactor Coolant Pump oil collection system does not fully comply with the requirements of 10 CFR 50, Appendix R, i.e., seismic design and capacity.

Each Reactor Coolant Pump (RCP) holds 240 gallons of oil in the upper bearing system and 26 gallons in the lower bearing system. The RCP oil piping is seismically qualified (the piping installed on the pump) and the drain piping is Class 1 (L). Should one of the pump's oil system fail, approximately 240 gallons of oil will be collected by the "pocket sump" and associated drain piping. The piping holds 140 gallons and the "pocket sump" holds 200 gallons. In the event that the "pocket sump" is full of water, the excess oil will overflow to the containment floor.

3. Inadequate separation (less than 20-feet) exists between the following valves:

- a) Location - 480V Transformer Room 2B, valve 2-FCV-67-81 ('A' train) interacts with same system 'B' train equipment.
- b) Location - 480V Transformer Room 1A, valve 1-FCV-67-82 ('B' train) interacts with same system 'A' train equipment.
- c) Location - 480V Transformer Room 2A, valve 2-FCV-67-82 ('B' train) interacts with same system 'A' train equipment.
- d) Location - 480V Shutdown Board Room, valve 2-FCV-67-489 ('B' train) interacts with same system 'A' train equipment.
- e) Location - Auxiliary Control Room, valve 1-FCV-67-147 ('A' train) interacts with same system 'B' train equipment.
- f) Essential Raw Cooling Water (ERCW) pumps J-A, Q-A, K-A, R-A, and units 1 and 2 valve FCV-67-492 interact with 1, 2-FCV-67-489 ('B' train).
- g) Location - Unit 1 Penetration Room, valve 1-FCV-67-81 ('A' train) interacts with 1-FCV-67-82 ('B' train).
- h) Location - Unit 2 Penetration Room, valve 2-FCV-67-81 ('A' train) interacts with 2-FCV-67-82 ('B' train).
- i) Valve 1-FCV-67-81 ('A' train) interacts with 1-FCV-67-82 ('B' train) down column line A1 through A6 and wall line q through u, elevation 690.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1)  Sequoyah, Unit 1	DOCKET NUMBER (2)  0   5   0   0   0   3   2   7	LER NUMBER (6)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
		8   4	-   0   5   9	-   0   0	0   3	OF   0   5

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

- j) Valve 2-FCV-67-81 ('A' train) interacts with 1, 2-FCV-67-82 ('B' train) down column line A11 through A15 and wall line q through u, elevation 690.
- k) Valves 1, 2-FCV-67-81 ('A' train) interact with 1, 2-FCV-67-82 ('B' train), elevation 669.
- 4. Less than 20-feet of separation exists, causing RHR pump 1A-A (cables 1PP575A, 1PP577A, 1PP578A, and 1PP580A) to interact with RHR pump 1B-B pump room cooler fan (cables 1PL4098B/1PL3043B, 1PL4097B/1PL3041B) on elevation 714, column A3/R.
- 5. Less than 20-feet of separation exists between the RHR pump cooler 2A-A (cable 2PL3033A) and the 2B-B RHR pump (cables 2PP587B, 2PP589B, 2PP590B, and 2PP592B). Also, the 2A-A RHR pump cooler (cable 2PL3033A) interacts with 2B-B 6900V shutdown board on elevation 734, column A13/R.
- 6. Less than 20-feet of separation exists, causing 1B-B RHR pump room cooler (cable 1PL3042B) to interact with the 1A-A RHR pump (cables 1PP575A, 1PP577A, 1PP578A, and 1PP580A) on elevation 734, column A3/Q.
- 7. Less than 20-feet of separation exists, causing 2A-A RHR pump room cooler (cables 2PL3032A and 2PL3033A) to interact with 2B-B RHR pump (cables 2PP587B, 2PP589B, 2PP590B, and 2PP592B) on elevation 734, column A12/Q.
- 8. Less than 20-feet of separation exists, causing 2A-A RHR pump room cooler (cables 2PL3031A and 2PL3033A) to interact with 2B-B RHR pump (cables 2PP587B, 2PP589B, 2PP590B, and 2PP592B) on elevation 714, column A13/R.
- 9. Cables and conduit that provide level indication for the automatic level control valves (LCVs) on the motor-driven auxiliary feedwater pumps (MDAFWP) pass through a potential fire zone on elevation 714, column A6-A14/Q-U (conduit/cable: MC1099/2PM1223K; C226/2PM1232K, 2PM1241K, 2PM1251K). The level indication is required for manual level control.
- 10. Less than 20-feet of separation exists, causing a common power cable for channel I temperature loops (2PV320J) to interact with a common power cable for channel II temperature loops (2PV330K) on elevation 714, column A4-A8/Q-R.
- 11. Less than 20-feet of separation exists between the two pressure loops P-68-69 and P-68-66. The cables are 2PV320J and 2PV135II, respectively, on elevation 714, column A4-A12/Q-R.
- 12. Less than 20-feet of separation exists between the two pressure loops P-68-69 and P-68-66. The cables are 2PM480I and 2PM481, respectively, on elevation 714, column A12-A14/Q-X and elevation 690, column A12-A13/X.
- 13. Cables for backup heater A-A pass on one side of a metal hatch and cables for backup heater B-B are on the other side of the metal hatch. The cables are 2PL4627A through 2PL4633A and 2PP820B, respectively, on elevations 749 and 734, column A11-A12/V. The hatch could conduct heat from a fire on elevation 734 to the control rod drive equipment room on elevation 749.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1)  Sequoyah, Unit 1	DOCKET NUMBER (2)  0 5 0 0 0 3 2 7	LER NUMBER (6)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
		8 4	0 5 9	0 0	0 4	OF 0 5

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

14. Unit 2 - In the auxiliary building on elevation 714 at A8/q line, the 2A-A RHR pump cables interact with the 2B-B RHR pump cables and fail to meet the 20-foot separation criteria required by Appendix R. (Cables involved: 2PP578A, 2PP580A, 2PP590B, and 2PP592B.)
  
15. Unit 1 - In the auxiliary building on elevation 734 at A3/q-r line; a fire in this area would require manual level control and the use of motor-driven AFW pump 1B-B. This condition also requires the use of the wide range level indication, whose cables pose an interaction of less than 20-feet. (Cables involved: 1PM1241K, 1PM1251K, and 1PM1223K for LI-3-56, 98, 111, and 43, respectively.)
  
16. Units 1 and 2 - In the auxiliary building on elevation 653 at A8/t line on either side of the elevator enclosure. The following RHR conduit and cables interact as they run from the floor to the ceiling on this elevation. (Cables involved: 'A' train - 1PP575A (U1), 2PP575A (U2) interact with 'B' train - 1PP587B (U1), 2PP587B (U2).)
  
17. Units 1 and 2 - In the auxiliary building on elevation 669 at A8/s to r line, the following cables for the 'A' train RHR pump 1A-A interact with the 'B' train RHR pump 1B-B. (Cables involved: 'A' train - 1PP577A, 1PP575A and 'B' train - 1PP589B, 1PP587B.) This same interaction applies to unit 2. (Cables involved: 'A' train - 2PP575A, 2PP577A, and 'B' train - 2PP587B, 2PP589B.)
  
18. Units 1 and 2 - On elevation 734 in the 6.9 KV shutdown board rooms, train 'B' shutdown board interacts (less than 2'-foot separation) with cables 1V2432A (1-FCV-67-147) and 1V2965A (1-FCV-67-223). For this interaction, it is assumed that the 'B' train shutdown board is lost due to a fire. This fire would also cause 1-FCV-67-223 to fail, making the 'A' component cooling heat exchanger inoperable. Also, 1-FCV-67-147 opening would crosstie the 2B and 1A essential raw cooling water headers.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1)  Sequoyah, Unit 1	DOCKET NUMBER (2)  0500032784	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
			059	000	5	OF	05

TEXT (If more space is required, use additional NRC Form 386A's) (17)

19. Units 1 and 2 - On elevation 714 of the auxiliary building, please note the following table which indicates the 'A' train - 'B' train interaction (less than 20-foot separation) for the cables to the listed valves.

<u>Unit 1</u>		<u>Unit 2</u>	
<u>'A' Train</u>	<u>'B' Train</u>	<u>'A' Train</u>	<u>'B' Train</u>
1-FCV-3-116A	1-FCV-3-126A	2-FCV-3-116A	2-FCV-3-126A
1-FCV-3-116B	1-FCV-3-126B	2-FCV-3-116B	2-FCV-3-126B
1-FCV-3-136A	1-FCV-3-179A	2-FCV-3-136A	2-FCV-3-179A
1-FCV-3-136B	1-FCV-3-179B	2-FCV-3-136B	2-FCV-3-179B
1-FCV-67-81	1-FCV-67-82	2-FCV-67-81	2-FCV-67-82
1-FCV-67-125	1-FCV-67-123	2-FCV-67-125	2-FCV-67-123
1-FCV-67-126	1-FCV-67-124	2-FCV-67-126	2-FCV-67-124
1-FCV-67-146	1-FCV-67-478	2-FCV-67-146	2-FCV-67-147
1-FCV-67-147	1-FCV-67-489	2-FCV-67-223	0-FCV-67-152
0-FCV-67-151	0-FCV-67-14	2-FCV-67-492	2-FCV-67-489
1-FCV-67-223	0-FCV-67-364	ERCW Pump R-A	ERCW Pump M-B
0-FCV-67-365	ERCW Pump L-B	ERCW Pump K-A	ERCW Pump P-B
1-FCV-67-424	ERCW Pump N-B	Traveling	Traveling
1-FCV-67-492	Traveling Screen B	Screen D	Screen C
ERCW Pump Q-A			
ERCW Pump J-A			
Traveling Screen A			

Corrective Action Taken or Planned

Item 1

Portable lighting has been supplied outside the Main Control Room, by the shift engineer's office, to be used by the operators. Operators in the plant usually carry flashlights. Portable lighting is also supplied by the Auxiliary Control Room in a cabinet by its entrance. TVA will reverify compliance with 10 CFR 50, Appendix P, Section J in accordance with the confirmation of action letter from O'Reilly to Parris dated August 10, 1984.

Item 2

System Operating Instruction (SOI) 55 was revised to include operator response to a RCP oil level alarm to pump down the sump if the level is greater than 45 percent. In addition, Surveillance Instruction (SI) 137.1 requires the pocket sump to be pumped down at least once per shift. TVA will reverify compliance with 10 CFR 50, Appendix R, Section III.0 in accordance with confirmation of action letter from O'Reilly to Parris dated August 10, 1984.

Item 3 through 19

The action statement for Technical Specification 3.7.12 was satisfied by utilizing firewatches in the affected areas that were established by other Appendix R commitments. This action included the establishment of a roving fire watch in areas with fire detection and a dedicated fire watch in areas without fire detection. An implementation schedule for corrective actions will be submitted to the NRC by January 1, 1985. The fire watches established will remain in effect until full compliance with the requirements of Appendix R can be achieved.

TENNESSEE VALLEY AUTHORITY

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

October 23, 1984

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

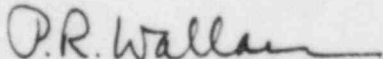
Gentlemen:

TENNESSEE VALLEY AUTHORITY - SEQUOYAH NUCLEAR PLANT UNIT 1 - DOCKET NO.  
50-327 - FACILITY OPERATING LICENSE DPR-77 - REPORTABLE OCCURRENCE REPORT  
SQRO-50-327/84059

The enclosed licensee event report, Special Report, and Facility Operating License Required Report per Section 2.H provide details concerning items of noncompliance with Appendix R of 10 CFR 50. This event is reported in accordance with 10 CFR 50.73, paragraph (a)(2)(ii).

Very truly yours,

TENNESSEE VALLEY AUTHORITY



P. R. Wallace  
Plant Manager

Enclosure  
cc (Enclosure):

James P. O'Reilly, Director  
U.S. Nuclear Regulatory Commission  
Suite 2900  
101 Marietta Street, NW  
Atlanta, Georgia 30323

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

NRC Inspector, NUC PR, Sequoyah