

## LICENSEE EVENT REPORT (LER)

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

TITLE (4)

Reactor Trip In Cold Shutdown

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)		
MONTH	DAY	YEAR	YEAR	SEQUENT. NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAMES		DOCKET NUMBER(S)
09	25	84	84	06	4	10	24	84			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)									
POWER LEVEL (10)	5	20.402(b)	20.405(c)	XX	50.73(a)(2)(iv)	73.71(b)					
	01010	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)(vi)	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  
Glenn E. Duggin, Compliance Section Engineer  
TELEPHONE NUMBER  
61 1 5 8 1 7 1 0 1 - 1 6 1 1 4 1 6

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)										
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC	

SUPPLEMENTAL REPORT EXPECTED (14)		EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE)	XX NO				

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

While in mode 5, cold shutdown, with reactor trip breakers closed, the unit experienced a trip on low-low steam generator level on loop 1. The main steam isolation valve was cycled for testing, releasing pressure on the steam generator, resulting in a swell, then a shrinkage, of level on the secondary side. This effect had not been anticipated before the test. Steam generator level was recovered after the trip, due to automatic start of the auxiliary feedwater. All systems worked as expected and no abnormalities were noted. There was no effect on public health or safety.

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## 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	0 5 0 0 0 3 2 7 8 4 -	0 6 4 -	0 0 0 2	OF	0 2		

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

With unit 1 in mode 5 (325 psig and 178 degrees F) at 2148 CST on 09/25/84, and with the reactor trip breakers closed, an inadvertent trip occurred on low-low steam generator level in loop 1. Prior to the event, the unit was preparing to enter mode 4 with the control and shutdown banks at five steps following a stroke and test to verify rod operability. A nitrogen cover was over the steam generator with approximately 10 psig and approximately 33 percent water level.

The unit operator had earlier noted improper indicator lights on loops 1 and 4 main steam isolation valves (MSIVs) and had written a Maintenance Request (MR) to verify their limit switches. After proper operation was verified a stroke test on the MSIVs was performed per SI-166.6. Upon opening MSIV FCV-1-4 for loop 1, the steam generator experienced a slight swell (approximately 5 percent) in level. The operator noticed the swell and closed the valve. Subsequently, the level dropped to slightly less than 18 percent, initiating a low-low level trip. All systems performed as expected and no deviations were noted.

The cause of the initial swelling can be attributed to the pressure decrease due to the effect of the condenser vacuum when the MSIV was opened. The condenser was being maintained at normal vacuum during this time. The resulting low pressure caused by the full vacuum of the condenser being placed on one steam generator at the given stable temperature was sufficient to generate significant boiling at the surface of the water. The loss of this water, the closing of the MSIV, and the resulting increase in pressure and subsequent collapsing of the remaining steam accounts for the resulting shrinkage in level. An auxiliary feedwater (AFW) pump started on the reactor trip signal restored the steam generator level to normal. The above described shrink and swell of steam generator levels can also be observed when the turbine stop valves are closed at power.

After the trip and operator verification that all systems actuated as expected, steam generator level indication returned to within expected range and no abnormalities were noted. Because of the possibility of similar occurrences in the future, a precautionary note will be added to GOI-1 to alert the unit operator of this type event. No further action is planned.

There was no effect on public health or safety, and no plant safety margins were exceeded.

Previous occurrences of low-low steam generator trips in 1984 on unit 1 - SQRO-50-327/84006, -84007, -84026, -84032, -84033.

TENNESSEE VALLEY AUTHORITY

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

October 24, 1984

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

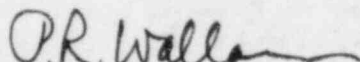
Gentlemen:

TENNESSEE VALLEY AUTHORITY - SEQUOYAH NUCLEAR PLANT UNIT 1 - DOCKET NO.  
50-327 - FACILITY OPERATING LICENSE DPR-77 - REPORTABLE OCCURRENCE REPORT  
SQRO-50-327/84064

The enclosed licensee event report provides details concerning the inadvertent opening of the reactor trip breakers (reactor trip) while the unit was in cold shutdown. 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

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