

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Sequoyah, Unit 2	DOCKET NUMBER (2) 0 5 0 0 0 3 2 8	PAGE (3) 1 OF 0 2
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TITLE (4)
Three Reactor Trips

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	
0	9	10	8	4	8	4	0	1	8	
										DOCKET NUMBER(S) 0 5 0 0 0

OPERATING MODE (9) 1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)				
POWER LEVEL (10) 0 1 1 9	<input type="checkbox"/> 20.402(b)	<input type="checkbox"/> 20.406(c)	<input checked="" type="checkbox"/> 50.73(a)(2)(iv)	<input type="checkbox"/> 73.71(b)	
	<input type="checkbox"/> 20.406(a)(1)(i)	<input type="checkbox"/> 50.36(c)(1)	<input type="checkbox"/> 50.73(a)(2)(v)	<input type="checkbox"/> 73.71(c)	
	<input type="checkbox"/> 20.406(a)(1)(ii)	<input type="checkbox"/> 50.36(c)(2)	<input type="checkbox"/> 50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)	
	<input type="checkbox"/> 20.406(a)(1)(iii)	<input type="checkbox"/> 50.73(a)(2)(i)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)		
	<input type="checkbox"/> 20.406(a)(1)(iv)	<input type="checkbox"/> 50.73(a)(2)(ii)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)		
	<input type="checkbox"/> 20.406(a)(1)(v)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(x)		

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
Heyward R. Rogers, 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 NPROS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS		

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)

On 09/10/84, three reactor trips occurred due to steam generator low-low level. These occurred at 0412 CST, 0901 CST, and 1253 CST, and all involved operators attempting to manually control steam generator levels on the feedwater bypass valves while trying to transfer to automatic controls. All systems actuated correctly during each event and there was no effect upon public health or safety.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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

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

With unit 2 in mode 1 at 19 percent reactor power at 0412 CST on 09/10/84, the unit tripped on low-low steam generator level on loop 4. Similar incidents occurred at 0901 CST and 1253 CST on 09/10/84 with both reactor trips being caused by low-low levels in steam generator loop 2.

For the 0412 CST reactor trip the reactor was at 19 percent power and the turbine at 13 percent load and a transfer was being attempted from manual control of the bypass regulator valves to the main regulator valves when the trip occurred. All systems and personnel responded as expected and the reactor was evaluated to be safe for restart. The unit returned critical at 0535 CST and the generator tied on line at 0811 CST. While attempting to transfer feed flow to automatic control, the condensate demineralizer flow bypassed on high differential pressure, causing fluctuations in feedwater flow and variations in levels in the steam generators. At 0858 CST level in steam generator loop 4 went high and isolated feed flow to that loop. In order to limit level transient the operator inserted rods below the insertion limits and the unit entered LCO 3.1.3.6. One minute later the turbine tripped on high-high level in loop 4. At 0901 CST the reactor tripped from 30 percent power on low-low steam generator level to loop 2. The condensate demineralizer was bypassed due to inadequate communications between the condensate demineralizer operator and the main control room during cleanup of feedwater. Operators involved were instructed to maintain closer communications. A safety assessment was performed and it was determined that the unit was safe for restart.

At 1038 CST on 09/10/84 the reactor returned to critical and the generator tied on line at 1217 CST. With the unit at 29 percent power, level started increasing in steam generator loop 4 and the operator inserted rods to limit level transient and exceeded rod insertion limits at 1253 CST (LC) 3.1.3.6). Also at 1253 CST a high-high level in loop 4 caused a turbine trip with a reactor trip following at 1255 CST on low-low level in steam generator loop 2. This trip occurred during an attempt to maintain levels while transferring from manual to automatic feedwater controls. A maintenance request was initiated (MR A282952) to investigate the controls to loop 4 steam generator regulator valve and proper operation was verified.

For long-term corrective action on low-low steam generator level trips, Engineering Design has been requested to evaluate the design of the steam generator level controls. DCR 1929 was issued to consider a Westinghouse design for automation of steam generator level control at low reactor power by automatically modulating the position of the bypass regulator valves instead of the present manual operation. In all three reactor trips, the sequence of events of automatic actuations occurred as expected with no unusual occurrences. There was no effect upon public health and safety. These are the fourth, fifth, and sixth automatic reactor trips on low-low steam generator level for 1984.

TENNESSEE VALLEY AUTHORITY

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

October 9, 1984

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

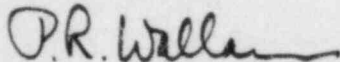
Gentlemen:

TENNESSEE VALLEY AUTHORITY - SEQUOYAH NUCLEAR PLANT UNIT 2 - DOCKET NO.
50-328 - FACILITY OPERATING LICENSE DPR-79 - REPORTABLE OCCURRENCE REPORT
SQRO-50-328/84018

The enclosed licensee event report provides details concerning three reactor trips occurring on September 10, 1984 due to low-low steam generator water levels. 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):

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

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