

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 3
---------------------------------------	--	----------------------

THE Surveillance Requirement Used To Verify Boron Concentration In The Cold Leg Accumulators Was Not Performed Within The Applicable Timeframes

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 3	0 6	8 8	8 8	0 1 1	0 1	0 5	1 0	8 8	Sequoyah, Unit 1		0 5 0 0 0 3 2 7
											0 5 0 0 0

OPERATING MODE (9) 3	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §. (Check one or more of the following) (11)									
POWER LEVEL (10) 0 0 0	20.402(b)		20.405(e)		50.73(a)(2)(iv)		73.71(b)			
	20.405(a)(1)(i)		50.36(c)(1)		50.73(a)(2)(iv)		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 366A)			
	20.405(a)(1)(iii)	XX	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)					
	20.405(a)(1)(vi)		50.73(a)(2)(iv)		50.73(a)(2)(x)					

LICENSEE CONTACT FOR THIS LER (12)		TELEPHONE NUMBER	
NAME	AREA CODE		
K. E. Meade, Plant Operations Review Staff	6 1 1 5	8 7 1 0 - 1 6 1 2 5 1 0	

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRRDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRRDS

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

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

This LER is being revised to update the cause and corrective action sections. At 2030 EST on March 6, 1988, with unit 1 in mode 5 and unit 2 in mode 3, the unit 2 cold leg accumulator 3 was declared inoperable due to the failure to perform Surveillance Requirement (SR) 4.5.1.1.1.b. This SR requires verification of the boron concentration of the cold leg accumulator within six hours after each solution volume increase of greater than or equal to one percent of the tank's volume. Reactor coolant system (RCS) inventory at 1600 psig was leaking into cold leg accumulator 3 at 400 psig; therefore, the accumulator had to be drained periodically. After draining the accumulator, the accumulator was refilling with RCS inventory. The Operations shift crews did not consider that the increase due to the RCS leak was a filling operation. Hence, the Radiochemistry laboratory was not notified to verify the boron concentration in cold leg accumulator 3, the SR was not performed in accordance with technical specification (TS). The cold leg accumulators are designed to ensure a sufficient volume of borated water will be forced in the core in the event of a large line break. At the time of this event, the RCS boron concentration was above 2000 ppm. Thus, the inleakage into the accumulator would not have caused a dilution of the accumulator below TS limits. The missed SR did not have an adverse affect on the safety of the plant. The causes of this event have been determined to be that the Operations shift crews did not consider the RCS leakage into the accumulator constituted a filling operation and the applicable operation procedures did not alert the operator to request a boron concentration sample for such an event. In order to prevent recurrence of this event, System Operating Instruction (SOI)-63.1, "ECCS," was revised to require a boron concentration sample to be pulled after both filling and draining operations. Also, a training letter has been issued to Operations personnel detailing this subject matter.

JEJ
1/1

8805200071 880510
PDR ADOCK 05000328
S DCD

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1) Sequoyah, Unit 2	DOCKET NUMBER (2) 0 5 0 0 0 3 2 8 8 8	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		88	011	01	02	OF	03

TEXT (if more space is required, use additional NRC Form 365A) (17)

DESCRIPTION OF EVENT

At 2030 EST on March 6, 1988, with unit 1 in mode 5 (0 percent power, 6 psig, 125 degrees F) and unit 2 in mode 3 (0 percent power, 1600 psig, 450 degrees F), the unit 2 cold leg accumulator 3 was declared inoperable due to the failure to perform Surveillance Requirement (SR) 4.5.1.1.1.b. This SR requires verification of the boron concentration of the cold leg accumulator within six hours after each solution volume increase of greater than or equal to one percent of the tank's volume. Reactor coolant system (RCS) inventory at 1600 psig was leaking into cold leg accumulator 3 at 400 psig; therefore, the accumulator had to be drained periodically. After draining the accumulator, the accumulator was refilling with RCS inventory. The Operations shift crews did not consider that the increase due to the RCS leak was a filling operation. Hence, the Radiochemistry laboratory was not notified to verify the boron concentration in cold leg accumulator 3, the SR was not performed in accordance with technical specification (TS).

Upon realizing the missed SR, the cold leg accumulator 3 was declared inoperable, and the Radiochemistry Laboratory was immediately notified to verify the boron concentration in the accumulator. At 2149 EST, the Radiochemistry Laboratory notified the shift supervisor (SS) that the boron concentration was 2085 ppm, which is within TS limits. The accumulator was then declared operable.

This event affected unit 2 only. Unit 1 could have been affected as the systems are identical on both units.

CAUSE OF EVENT

The cause of this event has been determined to be that the Operations shift crews did not consider that the RCS leakage into the accumulator constituted a filling operation. Operations personnel were draining the tank and allowing the RCS inleakage to refill the tank. No one considered the fact that RCS inleakage into the accumulator constituted a refilling operation. Thus, a boron concentration sample was not obtained as required by TSs.

ANALYSIS OF EVENT

This event is being reported under the requirements of 10 CFR 50.73, paragraph a.2.i, as an operation prohibited by TS.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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

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

The cold leg accumulators are required to be operable in modes 1, 2, and 3 (mode 3 above 1000 psig pressurizer pressure) with a boron concentration between 1900 ppm and 2100 ppm. SR 4.5.1.1.1.b requires a verification of boron concentration within six hours after each solution volume increase of greater than or equal to one percent of tank volume to ensure the concentration is between 1900 ppm and 2100 ppm. The cold leg accumulators are designed to ensure a sufficient volume of borated water will be forced in the core in the event of a large line break. At the time of this event, the RCS boron concentration was above 2000 ppm. Thus, the inleakage into the accumulator would not have caused a dilution of the accumulator below TS limits. The missed SR did not have an adverse affect on the safety of the plant.

If a loss of coolant accident (LOCA) had occurred while the plant was in a higher mode of operation and this condition existed, there is the potential to have diluted the cold leg accumulator below TS limits.

CORRECTIVE ACTION

Once it was discovered the SR had not been performed as required, the accumulator was declared inoperable and the Radiochemistry Laboratory was immediately notified to verify the boron concentration in the accumulator.

In order to prevent recurrence of this event, SOI-63.1 was revised to require a boron concentration sample to be pulled after draining occurs. This will prevent refilling of the accumulator without obtaining the corresponding boron concentration, thus complying with TSs. A training letter has been issued to Operations personnel detailing the subject matter of this report. This will ensure the operators are aware inleakage into a tank or accumulator constitutes a refilling operation so the appropriate action can be initiated. Also, SI-2, "Shift Log," contains a note which will alert Operations personnel to notify the Radiochemistry Laboratory to perform a boron concentration analysis should cold leg accumulator volume increase one percent, as required by TSs.

ADDITIONAL INFORMATION

There have been 7 LERs since January 1, 1987, on missed performances of SR's - SQRO-50-327/87008, 87023, 87038, 87059, 87068, and 328/88008.

COMMITMENTS

None.

0912Q

TENNESSEE VALLEY AUTHORITY
Sequoyah Nuclear Plant
Post Office Box 2000
Soddy-Daisy, Tennessee 37379

May 10, 1988

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-50-328/88011 REVISION 1

The enclosed licensee event report is being revised to update the cause and corrective action sections. This report provides details concerning a surveillance requirement used to verify boron concentration in the cold leg accumulators which was not performed within the applicable timeframes. This event was originally reported in accordance with 10 CFR 50.73, paragraph a.2.i, on April 1, 1988.

Very truly yours,

TENNESSEE VALLEY AUTHORITY


S. J. Smith
Plant Manager

Enclosure
cc (Enclosure):

J. Nelson Grace, Regional Administrator
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, Sequoyah Nuclear Plant

IE22
11