NRC Form 366
(9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES 8/31/85

LICENSEE EVENT REPORT (LER)

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

TITLE (4)
Diesel Generator Cooling Water System

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	1 5	8 5	8 5	0 0 5	0 0	0 2	1 3	8 5	Sequoyah, Unit 2	0 5 0 0 0 3 2 8
										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)	1 0 0	20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)
		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)	XX 50.73(a)(2)(vii)	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	TELEPHONE NUMBER
David P. Ormsby, Compliance Section Engineer	AREA CODE 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 NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	

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

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

A design review has revealed that, during a seismic event, essential raw cooling water (ERCW) piping downstream of the diesel generator (D/G) coolers could have failed. This failure would not have affected cooling for the D/G but may have resulted in localized flooding with potential D/G failure. The pipe supports have been modified to ensure seismic qualification. Since there was no seismic event, the subject piping retained its integrity and performed its intended function.

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 5	— 0 0 5	— 0 0	0 2 OF 0 2

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

Unit 1 in mode 1 at 100 percent power.
Unit 2 in mode 1 at 86 percent power.

During a walkdown of ERCW piping in the D/G building on December 1, 1984, an engineer from TVA's Office of Engineering (OE) noticed an apparent deficiency in the support of some Class C piping for D/G 2A2. A nonconformance report was initiated when a review of design requirements verified that Drawing 47W845-1 and Design Criteria SQN-DC-V-3.0 specify that the ERCW piping in the D/G building shall be Class C. The as-built condition for the ERCW piping downstream of the cooler associated with D/G 2A2 did not have the required seismic supports specified by Civil Engineering Branch Report 80-5 (EDS Report No. 0600105-01, "Alternate Criteria for Piping Analysis"). The subject piping was reanalyzed using the TPIPE computer code and on December 19, 1984, it was determined that four additional supports needed to be added to the ERCW piping on the downstream side of the D/G coolers in each D/G bay. Failure of this piping would not affect the cooling capacity for the D/Gs. Modifications were approved by the Plant Operations Review Committee (PORC) on December 20, 1984, and completed on December 24, 1984.

As a result of the TPIPE analysis, OE performed a failure evaluation and forwarded the failure evaluation/engineering report to the Sequoyah Nuclear Plant (SQN) Site Director on December 28, 1984, for evaluation. It was received by the Site Director on January 2, 1985, and forwarded to and received by the Regulatory Engineering Section (RES) on January 4, 1985, for preparation of a safety evaluation. The safety evaluation report (SER) was forwarded to and received by the plant manager on January 9, 1985. A review of the SER and nonconformance report by the Plant Compliance Staff on January 11, 1985, resulted in questions concerning the basis used by RES for the SER. Because the failure evaluation concluded that the discharge piping could have failed during a seismic event and questions concerning the SER, a potential reportable occurrence (PRO) report was written in accordance with SQN Standard Practice SQA 84 on January 15, 1985. It was determined that the SER issued by RES was inadequate in that it was based on a review of the system as modified. To define the actual consequences of pipe failure on plant safety with the preexisting configuration, an additional evaluation was performed. As a result of this safety evaluation completed on February 11, 1985, it has been determined that a seismic event could have caused failure of each of the discharge pipes for the coolers of all D/Gs. This failure would not affect the cooling capability; however, the resultant spray and localized flooding may have rendered all D/Gs inoperable.

In the future, safety evaluations will be performed based on as-found conditions.

An additional review of the remaining Class C piping is being conducted. Information on any additional reportable deficiencies will be provided in subsequent licensee event reports.

There was no adverse effect on public health or safety.

Previous occurrences - none.

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

February 14, 1985

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-50-327/85005

The enclosed licensee event report provides details concerning a design deficiency for discharge piping supports for the diesel generator cooling system. This event is reported in accordance with 10 CFR 50.73, paragraph a.2.vii.

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

IE22
1/1