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 2	0 5 0 0 0 3 2 8	1 OF 0 2

TITLE (4)
Engineered Safety Features Actuation

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

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)	XX 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)	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
	AREA CODE
Glenn E. Duggin, Compliance Section Engineer	6 1 5 8 7 0 – 6 5 4 8

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)	XX NO				

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

The inadvertent trip of the normal feeder breaker on the 6900 volt 2A-A shutdown board initiated the actuation of the engineered safety features (ESF) system. The trip occurred while a modification was being performed on the alternate feeder breaker. The alternate feeder breaker was racked out, and personnel were not actually performing work for several seconds before or during the trip. All equipment performed as expected during and following the ESF actuation. There was no actual blackout condition during the event.

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Sequoyah, Unit 2	0 5 0 0 0 3 2 8	8 5	— 0 0 7	— 0 0	0 2 OF 0 2

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

On July 12, 1985, at 1234 CST, the inadvertent trip of the normal feeder breaker (NFB) on the 6.9kv 2A-A shutdown board (SDB) initiated the actuation of the engineered safety features (ESF) system. This event occurred while unit 1 was in mode 1 (100 percent power, 2235 psid, 578 degrees F) and unit 2 was in mode 1 (100 percent power, 2235 psig, 578 degrees F). All personnel and equipment performed and responded as expected during this event. The operator acknowledged the annunciator for the shutdown board and initiated Abnormal Operating Instruction (AOI)-35, "Loss of Offsite Power." All four diesel generators (D/G) started, and the D/G for board 2A-A sequenced on loads as required per AOI-35. After it was determined that a blackout condition did not exist, which is a total loss of offsite power, the other three D/Gs were stopped. At 1307 CST on July 12, 1985, the 2A-A shutdown board was tied back to the unit board through the NFB per AOI-35. At 1309 CST, the 2A-A D/G was stopped. At 1311 CST, all equipment was verified to be returned to normal, and the standby checklist was performed on all D/Gs.

The NFB tripped due to an undetermined cause, and the SDB attempted to transfer to the alternate feeder breaker (AFB). The transfer was not completed because the AFB was racked out for modification work, and the D/Gs started on the undervoltage (ESF) signal. The modification on the AFB was for Appendix R interaction number 97. This interaction required a wiring change to be performed on all 6.9kv shutdown boards and the D/G breaker boards. The rewiring changed the breaker position indication lights in the auxiliary control room (ACR) to where they would be inactive until the transfer switch for the breaker control is placed in the "auxiliary" position. This prevents a fire in the main contol room (MCR) from destroying backup indication in the ACR. Personnel had already completed the rewiring for the other three shutdown boards without incident. Personnel were approximately half finished with SDB 2A-A when the NFB tripped. In conversations with personnel involved, they were waiting on a light check (which required a temporary jumper wire). After examining other possibilities, the spurious operation of an undervoltage or degraded voltage device could have tripped the NFB, but this could not be proven. Immediately after the event, the assistant shift engineer (ASE) had the jumper wire removed so that the board could be returned to normal service. The jumper wire was removed, and the SDB was returned to the normal operating configuration without incident. Although the exact cause of the NFB trip could not be determined, the most probable cause has been attributed to the activity in the area of the shutdown board.

Before continuing the test part of the modification, the undervoltage and degraded voltage relays were checked for correct calibration, and monitoring voltmeters were placed across the undervoltage trip relays to check for spurious signals. All of the relays were within calibration requirements. During the rest of the test, the voltmeters were monitored closely, and no spurious signals were discovered. The modification was completed without incident.

No component failure or personnel error could be found for this event, and no other incidents of this type have occurred. Therefore, this event is considered an isolated case, and no further corrective action is planned.

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

Previous occurrences - none.

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

August 6, 1985

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-50-328/85007

The enclosed licensee event report provides details concerning the engineered safety features actuation caused by the trip of the normal feeder breaker on 6.9kv shutdown board 2A-A. This event is reported in accordance with 10 CFR 50.73, paragraph a.2.iv.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

P.R. Wallace

P. R. Wallace
Plant Manager

Enclosure
cc (Enclosure):

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NRC Inspector, NUC PR, Sequoyah

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