NRC Form 366
(9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/88

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 4

TITLE (4) Numerous Relays, Level Switches, Cycle Timers, Load Controllers, And Meters Have Not Been Routinely Calibrated Because They Were Not Identified In Procedures

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	2 9	8 7	8 7	—	0 1 0	—	0 1	0 3	1 9	8 7	Sequoyah Unit 2	0 5 0 0 0 3 2 8
												0 5 0 0 0

OPERATING MODE (9)	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)					
5	20.402(b)		20.405(c)		50.73(a)(2)(iv)	73.71(b)
POWER LEVEL (10) 0 0 0	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)	XX	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
J. L. Long, Plant Operations Review Staff	AREA CODE 6 1 5 — 8 7 0 - 7 2 5 4

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)

This revision includes other components that have not been calibrated and were not covered by the previous revision of this LER.

On January 29, 1987, at 1300 EST, with unit 1 in mode 5 (0 percent power, 0 psig, and 109 degrees F), and unit 2 in mode 5 (0 percent power, 250 psig, and 110 degrees F), numerous time delay relays, cycle timers, level switches, and load controllers were identified as not being routinely calibrated. On February 20, 1987, with both units in mode 5, several undervoltage relays, overvoltage relays, and meters were identified as not being routinely calibrated. These discoveries were the result of a Division of Nuclear Quality Assurance audit.

The root cause of not calibrating the components was that before the Division of Nuclear Quality Assurance audit the components have not been identified on any procedure to require calibration due to lack of clearly defined departmental responsibilities.

Components necessary for unit 2 operation will be calibrated before startup of unit 2. Similiarly, components necessary for unit 1 operation will be calibrated before unit 1 startup. Additionally, procedures will be prepared to routinely calibrate all of the components on a scheduled basis.

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(9-83)

This revision includes other components that have not been calibrated and were not covered by the previous revision of this LER.

DESCRIPTION OF EVENT

On January 29, 1987, at 1300 EST, with unit 1 in mode 5 (0 percent power, 0 psig, and 109 degrees F) and unit 2 in mode 5 (0 percent power, 250 psig, and 110 degrees F), numerous time delay relays, cycle timers, level switches and load controllers were identified as being routinely calibrated. On February 20, 1987, with both units in mode 5, several undervoltage relays, overvoltage relays, and meters were identified as not being routinely calibrated. These discoveries were the result of a Division of Nuclear Quality Assurance audit. The audit was documented on Deviation Report No. QSQ-A-86-0007-001 dated July 11, 1986. The audit determined that certain Nuclear Quality Assurance Manual requirements and Sequoyah Nuclear Plant standard practices have not always been fully implemented and all electrical devices may not be adequately covered by the site's quality assurance program. Sequoyah Nuclear Plant's response was that the instruments would be identified and included in a comprehensive procedure to control calibration of instruments. The components that were identified as not being included on any procedure are associated with the following systems:

	Time Delay Relays	EIIS Code
1.	Auxiliary feedwater pump turbine steam supply transfer	SJ
2.	Essential raw cooling water (ERCW) header isolation valves	KI
3.	Motor driven auxiliary feedwater pump steam generator level and bypass control valves	SJ
4.	Fire pump start logic	KP
5.	Diesel generator room exhaust fans	VJ
6.	Diesel generator battery hood exhaust fans	VJ
7.	Diesel generator 480 volt board room exhaust fans	VJ
8.	Containment air return fans	VC
9.	Auxiliary control air compressors	LD
10.	Centrifugal charging pump auxiliary oil pumps	CB
11.	Boric acid flow	CB
12.	Primary water flow	CB
13.	Diesel generator engine heat exchanger supply valves	LB
14.	ERCW supply header 1B to header 2A isolation valves	KI
15.	Component cooling system booster pumps	CC
16.	Component cooling water flow differential	CC
17.	Containment spray recirculation valves	BE
18.	Manipulator crane gripper engaged	DF
19.	Manipulator crane slow zone	DF
20.	Diesel generator solenoid valves for air start motors	LC
21.	Diesel generator normal stop logic	EK
22.	Diesel generator hydraulic governor control	EK
23.	Diesel generator speed switch relay	EK
24.	Upper head injection positive displacement pump recirculation valve	BQ
25.	480 Volt shutdown board control voltage transfer switches	ED
26.	6.9kv shutdown board control voltage transfer switches	EB
27.	6.9kv shutdown board degraded voltage	EB
28.	Centrifugal charging pump load sequencing logic	EB

29.	6.9kv shutdown board load sequencing logic	EB
30.	Containment spray pump load sequencing logic	EB
31.	Auxiliary feedwater pump load sequencing logic	EB
32.	ERCW pumps load sequencing logic	EB
33.	Component cooling system pump load sequencing logic	EB
34.	120 VAC vital inverters	EF
35.	Control Building pressurizer fans	VI
36.	Battery room exhaust fans	VF
37.	Control room air handling units	VI
38.	480 Volt board room pressurizer fans	VF
39.	Main control room air handling units	VF
40.	Electric board room air handling units	VF
41.	Electric board room chillers	VF
42.	Main control room chillers	VI
43.	480 Volt board room air handling units	VF
44.	Emergency gas treatment system fans	BH
45.	Shutdown board room chillers	VF

	Level Switches	EIIS Code
1.	Diesel generator day tanks	DC
2.	Spent fuel pit water level	DA
3.	Auxiliary air compressor oil level	LD
4.	Shutdown board room compressor tank level	VF

	Cycle Timers	EIIS Code
1.	Auxiliary control air compressor dryer	LD

	Load Controllers	EIIS Code
1.	Electric board room chiller motor	VF
2.	Main control room chiller motor	VI
3.	Shutdown board room temperature	VF

	Undervoltage Relays	EIIS Code
1.	Vital battery boards	EJ
2.	Vital battery chargers	EJ
3.	Vital inverters	EF
4.	Vital instrument power boards	EF

	Overvoltage Relays	EIIS Code
1.	Vital battery boards	EJ

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Sequoyah, Unit 1	0 5 0 0 0 3 2 7	8 7	— 0 1 0	— 0 1	0 4 OF 0 4

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

Meters	EIIS Code
1. Vital battery chargers	EJ
2. Vital battery boards	EJ
3. ERCW motor control centers	ED

Many of these instruments are used for compliance to Technical Specification parameters. However, the safety related systems that contain any of the above components are periodically functional tested. Any inoperable components most probably would have been discovered during this testing. Therefore, no limiting conditions for operation were entered.

Some components and systems are common to units 1 and 2.

CAUSE OF EVENT

The root cause of not periodically calibrating the aforementioned components was that, until the Division of Nuclear Quality Assurance audit, the components were not identified by any procedure to require routine calibration due to lack of clearly defined departmental responsibilities.

ANALYSIS OF EVENT

This event is reportable under 10 CFR 50.73 paragraph a.2.i.B as an operation or condition prohibited by plant technical specifications.

Even though the above listed timers, level switches, load controllers, undervoltage relays, and overvoltage relays have not been calibrated, the systems are routinely functional tested. The functional tests provide a high level of confidence that the systems do operate properly. Therefore, there has been no threat to the safety of plant personnel or the general public.

CORRECTIVE ACTION

Work requests and instructions are being prepared to calibrate all of the aforementioned components. Those necessary for unit 2 operation will be completed before startup of unit 2. Similarly, unit 1 components will be calibrated before unit 1 startup. Procedures will be prepared to routinely calibrate all of the components on a scheduled basis.

Additional research is being performed as a result of the Division of Nuclear Quality Assurance audit in other areas. If other deficiencies are identified, the LER will be revised.

ADDITIONAL INFORMATION

There have been no previous occurrences.

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

March 20, 1987

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-50-327/87010 REVISION 1

The enclosed revised licensee event report identifies additional components that have not been routinely calibrated because they were not identified on any procedure. This event was orginally reported in accordance with 10 CFR 50.73, paragraph a.2.i.B, on January 29, 1987.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

L. M. Nobles

L. M. Nobles
Acting Plant Manager

Enclosure
cc (Enclosure):

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NRC Inspector, Sequoyah Nuclear Plant

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