

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)
Browns Ferry - Unit 1

DOCKET NUMBER (2)

0 5 0 0 0 2 5 9 1 OF 0 3

TITLE (4)

Unqualified Diesel Generator and Shutdown Board Battery Racks

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	4	1	9	8	5	8	5	0	1	4	0	1	1	1	0	1	8	5	Browns Ferry - Unit 2	0 5 0 0 0 2 6 0
0	4	1	9	8	5	8	5	0	1	4	0	1	1	1	0	1	8	5	Browns Ferry - Unit 3	0 5 0 0 0 2 9 6

OPERATING MODE (9)		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5. (Check one or more of the following) (11)									
POWER LEVEL (10)	0 1 0 1 0	20.402(b)		20.405(c)		50.73(a)(2)(iv)		73.71(b)			
		20.406(a)(1)(i)		50.36(c)(1)		50.73(a)(2)(v)		73.71(c)			
		20.406(a)(1)(ii)		50.36(c)(2)		50.73(a)(2)(vi)		OTHER (Specify in Abstract below and in Text, NRC Form 366A)			
		20.406(a)(1)(iii)		50.73(a)(2)(i)							
		20.406(a)(1)(iv)		50.73(a)(2)(ii)							
		20.406(a)(1)(v)		50.73(a)(2)(iii)							

LICENSEE CONTACT FOR THIS LER (12)
NAME
Stephen B. Jones, Compliance Engineer

TELEPHONE NUMBER

AREA CODE

2 0 5 7 2 9 - 2 5 3 8

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)									
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC

SUPPLEMENTAL REPORT EXPECTED (14)
YES (If yes, complete EXPECTED SUBMISSION DATE) ☒ NO

EXPECTED SUBMISSION DATE (15)

MONTH DAY YEAR

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

On April 19, 1985, the preliminary results of an engineering evaluation being performed because the number one, two, and three 250-V battery racks, the 48-V A and B annunciator battery racks, the 48-V telephone battery rack, the unit 1 and 2 diesel generator A, B, C, and D battery racks, and the unit 3 diesel generator A, B, C, and D battery racks were not installed per design drawings concluded that the diesel generator battery racks were not seismically qualified. On May 1, 1985, another engineering evaluation determined the installation discrepancy in the 3EB shutdown board battery rack made it unqualified in a seismic event. On May 24, 1985, gaps were identified between the 3EB shutdown board battery jars. During the same inspection, gaps were also identified between the end rails and battery jars of each bank of 24-V neutron monitoring batteries. The remaining battery racks were determined to be acceptable as installed.

The diesel generator racks were upgraded on April 20 and 21 to meet seismic requirements. Adjustments were made on April 22 to the 3EB shutdown board battery racks to meet seismic requirements. On May 29 adjustments were made to the 3EB shutdown board battery racks to eliminate gaps between the battery jars. The gaps in the 24-V neutron monitoring battery banks were corrected on July 11. The remaining battery rack drawings are being revised to reflect the installed configuration. There was no effect on the health and safety of the public.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

APPROVED OMB NO. 3150-0104

EXPIRES 8/31/88

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
Browns Ferry - Unit 1	0 5 0 0 0 2 5 9	8 5	- 0 1 4	- 0 1	0 2	OF	0 3

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

Unit 1 and unit 2 were in refueling/maintenance outages. Unit 3 was in cold shutdown.

On April 5, 1985, the number one, two, and three 250-V main battery (EJ) racks, the 48-V A and B annunciator battery racks, 48-V telephone battery rack, the 24V neutron monitoring battery rack, the unit 1 and 2 diesel generator (DG) (EK) battery A, B, C, and D racks, and the unit 3 DG battery A, B, C, and D racks were found installed out of drawing specifications. On April 19, 1985, preliminary results of an engineering evaluation indicated that the 250-V battery racks, the 48-V battery racks, and the 24-V battery racks were qualified in the present configuration. The DG battery racks could not meet seismic qualification requirements. On April 22, 1985, a 3-inch to 4-inch gap between a battery and the end of the 3EB shutdown board battery rack was identified. An evaluation completed on May 1, 1985, showed the battery rack could not meet seismic qualification requirements. On May 24, 1985, gaps between the 3EB shutdown board battery jars were identified. During the same inspection, gaps between the end rails and the batteries were identified on each bank of the 24-V neutron monitoring batteries. The neutron monitoring batteries are critical structures, systems, and components but not class 1E.

On April 20 and 21, the DG battery racks had shims installed to correct the installation deficiency. On April 22, the 3-inch to 4-inch gap on the 3EB shutdown board battery rack was eliminated by adjusting the end of the battery rack. On May 29, 1985, the gaps between the 3EB shutdown board battery jars were eliminated by adjusting the position of each jar to ensure a snug fit on the jar spacers. The gaps between the end rails and the batteries on the neutron monitoring batteries were eliminated by proper adjustment of the end rails and installation of plywood spacers per the manufacturers recommendations on July 11, 1985.

The DG battery racks were in an unqualified configuration because modification engineers did not take appropriate steps to ensure all design requirements were met. A lack of detailed mounting instructions was found to be the primary cause of the 3EB shutdown board battery rack not being properly installed.

A safety evaluation showed there was the potential to damage the 3EB shutdown board battery and the DG batteries during the design basis earthquake. The 3EB shutdown board battery provides control power to the 3EB 4160-V shutdown board. The loss of one 4160-V shutdown board is acceptable per the Final Safety Analysis Report and would not jeopardize plant safety. Damage to the DG batteries would prevent startup of the corresponding DG. The loss of the DG would accordingly jeopardize the ability to maintain the plant in a safe shutdown condition in the event of concurrent loss of offsite power.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/88

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
Browns Ferry - Unit 1	0 5 0 0 0 2 5 9	8 5	- 0 1 4	- 0 1	0 3	OF	0 3

TEXT (If more space is required, use additional NRC Form 365A's) (17)

The DG and shutdown board battery racks were modified to meet design requirements. The design drawings for the 250-V, 48-V, and 24-V battery racks are being revised to reflect the installed configuration. The probability of similar installation errors occurring has been minimized by the present modification procedures. The present procedures are more comprehensive than the procedures used to install the battery racks in 1979 and 1980.

Responsible Plant Section - Modifications

Previous Events - None

TENNESSEE VALLEY AUTHORITY
Browns Ferry Nuclear Plant
P.O. Box 2000
Decatur, Alabama 35602

November 1, 1985

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

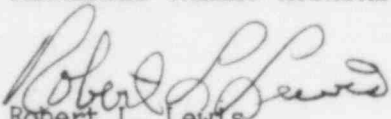
Dear Sir:

TENNESSEE VALLEY AUTHORITY - BROWNS FERRY NUCLEAR PLANT UNIT 1 - DOCKET NO.
50-259 - FACILITY OPERATING LICENSE DPR-33 - REPORTABLE OCCURRENCE REPORT
BFRO-50-259/85014 R1

The enclosed report provides additional information concerning the unqualified diesel generator and shutdown board battery racks. This report is submitted in accordance with 10 CFR 50.73 (a)(2)(ii).

Very truly yours,

TENNESSEE VALLEY AUTHORITY



Robert L. Lewis
Acting Plant Manager
Browns Ferry Nuclear Plant

Enclosures

cc (Enclosures):

Regional Administrator
U.S. Nuclear Regulatory Commission
Office of Inspection and Enforcement
Region II
101 Marietta Street, Suite 2900
Atlanta, Georgia 30303

INPO Records Center
Suite 1500
1100 Circle 75 Parkway
Atlanta, Georgia 30339

NRC Resident Inspector, Browns Ferry

IE22
1/1