

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Browns Ferry Unit 1										DOCKET NUMBER (2) 0 5 0 0 0 2 5 9 1										PAGE (3) 1 OF 2								
TITLE (4) Seismically Unqualified Flanged Joints																												
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	7	0	6	8	5	8	5	0	3	1	0	1	0	6	1	2	8	7	Browns Ferry Unit 2					0 5 0 0 0 2 6 0				
										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 §: (Check one or more of the following) (11)																										
N		20.402(b)				20.405(c)				50.73(a)(2)(iv)				73.71(b)														
POWER LEVEL (10)		20.405(a)(1)(i)				50.36(c)(1)				X 50.73(a)(2)(v)				73.71(c)														
0 0 0		20.405(a)(1)(ii)				50.35(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 Stephen B. Jones, Engineer, Plant Operations Review Staff																		TELEPHONE NUMBER 2 0 1 5 7 1 2 9 1 - 1 3 1 7 1 8 1 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)																		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)

An engineering review discovered that the chilled water recirculation pumps in the control bay, the chilled water recirculation pumps in the unit 3 diesel generator building, and the water regulator valve on the control bay emergency condensing units could have flanged joints that might not meet seismic requirement because of mating flanges not properly matching. These joints were inspected and, where necessary, modified to correct the problem.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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 3 1	— 0 1	0 2	OF	0 2

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

Units 1 and 2 were in a refueling outage, and unit 3 was in cold shutdown. All three units were affected.

On July 6, 1985, through July 9, 1985, engineering reviews were completed on the flanged joints of the chilled water recirculation pumps in the unit 3 diesel generator building (KM), the chilled water recirculation pumps in the control bay (KM), the residual heat removal service water (RHRSW) air release valves (KE), a pressure reducing valve (PCV 67-56) (VI), and the water regulator valves (TCV 67-62) on the control bay emergency condensing units (VI). The results indicated that certain flanged joints could be seismically unqualified because of flat faced flanges mated with raised face flanges. Where this condition existed, there was the possibility of flange failure during a seismic event. Also, there was potential to have a flange failure during normal torquing operation.

Inspections were performed on the chilled water recirculation pumps in the control bay and the unit 3 diesel generator building and the 67-62 valve. The RHRSW air release valves were not inspected since the existing arrangement had been previously analyzed for failure during seismic events. These air release valves have been changed out and have a seismically qualified flanged connection. PCV-67-56 ties to a nonseismic system and, therefore, does not require modification. The discharge joint on three of the four chilled water pumps located in the unit 3 diesel generator building were found to have a raised face flange. Both chilled water pumps in the control bay had a raised face flange on the pump discharge joint. Valve TCV 67-62 also had a raised face flange. All of the raised flanges were ground flat and retorqued according to design specified values.

This condition affected the seismic qualification of the cooling systems for the unit 1 and 2 control room and unit 3 shutdown board room coolers. Since the connecting lines to the pumps were seismically qualified, it is not expected that a gross failure of the flange would occur. Potential did exist for a sizeable leak which would jeopardize the capability of these systems to provide vital cooling to the affected areas and equipment during seismic events if accompanied by an accident situation.

The root cause for this problem was failure of the design organization during original plant construction to properly specify flange types and flange material. Existing procedures which govern design activities are much more rigorous than those employed during construction; therefore, this type error is not likely to recur.

Responsible Plant Section - ED

Previous Events - BFRO-50-259/85025

TENNESSEE VALLEY AUTHORITY

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

June 23, 1987

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

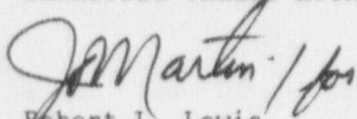
Dear Sir:

TENNESSEE VALLEY AUTHORITY - BROWNS FERRY NUCLEAR PLANT UNIT 1 - DOCKET
NO. 50-259 - FACILITY OPERATING LICENSE DPR-33 - REPORTABLE OCCURRENCE REPORT
BFRO-50-259/85031

The enclosed report provides additional details concerning the seismically
unqualified flanged joints. This report is submitted in accordance to
10 CFR 50.73 (a)(2)(v).

Very truly yours,

TENNESSEE VALLEY AUTHORITY



Robert L. Lewis
Plant Manager
Browns Ferry Nuclear Plant

Enclosures

cc (Enclosures):

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U.S. Nuclear Regulatory Commission
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NRC Resident Inspector, Browns Ferry Nuclear Plant

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