

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)										DOCKET NUMBER (2)										PAGE (3)																			
Browns Ferry - Unit 1										0 5 0 0 0 2 5 9 1 OF 0 2																													
TITLE (4)																																							
Loss Of Secondary Containment Caused By Design Oversight																																							
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)															
																		Browns Ferry - Unit 2						0 5 0 0 0 2 6 0															
0 8 2		2 8 6		8 6		0 2 4		0 0 0		9 1 9 8		6		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)		0 0 0				20.405(a)(1)(i)						50.38(c)(1)						50.73(a)(2)(v)						73.71(c)															
						20.405(a)(1)(ii)						50.38(c)(2)						50.73(a)(2)(vii)						OTHER (Specify in Abstract below and in Text, NRC Form 365A)															
						20.405(a)(1)(iii)						X 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																			
Alan W. Gordon, Mechanical Engineer, PORS																				2 0 5 7 2 9 - 2 5 3 7																			
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									
X YES (If yes, complete EXPECTED SUBMISSION DATE)																				NO										0 1 1 5 8 7									

On August 22, 1986, it was determined by TVA design engineers that various nonsafety related piping systems penetrating the reactor building-turbine building wall are not seismically qualified. In this condition, technical specification requirements relative to the integrity of secondary containment cannot be met. Browns Ferry Technical Specifications require secondary containment integrity to be maintained at all times or to establish primary containment. At the same time, it was acknowledged that unit 3 primary containment leak rate testing is not current. Under present circumstances, a limiting condition for operation is exceeded. A TVA design oversight permitted drawings to be issued which did not include any requirements to seismically qualify secondary containment penetrations, as described to in the Final Safety Analysis Report. Long-term corrective action proposals are under evaluation. In the interim, no fuel movement will be permitted.

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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 6	— 0 2 4	— 0 0	0 2	OF 0 2

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

Units 1 and 2 were in refueling outages, and unit 3 was in an extended maintenance outage when this condition was discovered. Secondary containment integrity for all three units is affected.

On August 22, 1986, it was determined by TVA design engineers that certain secondary containment piping penetrations are not seismically qualified. Various auxiliary boiler (SA) steam, raw cooling water, and fire protection (KP) piping configurations entering the reactor building (NG) from the turbine building (NM), in all three units, are not supported in accordance with TVA seismic class I criteria. Consequently, secondary containment was declared inoperable. Coincident with this determination, it was acknowledged that unit 3 primary containment local and integrated leak rate testing is not up-to-date. Several valves which were added to the 10CFR50 Appendix J testing program have not yet been modified to allow testing. Browns Ferry unit 3 Technical Specification 3.7.C requires secondary containment integrity to be maintained at all times or, when this is not possible, that primary containment integrity be maintained. Under the present circumstances, the limiting conditions for operation are not met.

The TVA design organization failed to implement the plant design as stated in section 5.3 of the Final Safety Analysis Report (FSAR). Design drawings do not include any requirements to seismically qualify secondary containment penetrations, as described in the FSAR.

Long-term corrective action proposals are under evaluation. No fuel movement will be permitted until the design basis of secondary containment can be adequately demonstrated, or otherwise satisfied through a reassessment of original licensing objectives. An updated report will be submitted at a later date.

No failures of secondary containment penetrations have been identified; however, a postulated earthquake could, possibly, result in a condition wherein the design basis of the secondary containment cannot be met. Under the design basis, two trains of the standby gas treatment (SBGT) system (BH) must be capable of maintaining a 1/4-inch water negative pressure in the reactor building under calm wind conditions. A radioactive release within secondary containment, in conjunction with a seismic event, could result in insufficient SBGT capacity to prevent ground level release of airborne activity. In the present plant condition, the only credible design basis accident is a fuel handling accident.

Responsible Plant Section - Design

Previous Similar Events - BFRO 50-259/84025

TENNESSEE VALLEY AUTHORITY

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

September 19, 1986

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-50-259/86024

The enclosed report provides details concerning the loss of secondary containment caused by design oversight. This report is submitted in accordance to 10 CFR 50.73 (a)(2)(i).

Very truly yours,

TENNESSEE VALLEY AUTHORITY

Robert L. Lewis
for Robert L. Lewis
Plant Manager
Browns Ferry Nuclear Plant

Enclosures

cc (Enclosures):

Regional Administration
U.S. Nuclear Regulatory Commission
Office of Inspection and Enforcement
Region II
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Atlanta, Georgia 30303

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

NRC Resident Inspector, Browns Ferry Nuclear Plant