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)
Browns Ferry - Unit 1	0 5 0 0 0 2 5 9	1 OF 0 2

TITLE (4)
Use of Unspecified Material on Axial Restraints

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 8	1 9	8 5	8 5	0 4 4	0 1		1 2	0 6	8 5	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)	N	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)			
POWER LEVEL (10)	0 0 0	20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)
		20.405(a)(1)(i)	50.36(c)(1)	X 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
Stephen B. Jones, Compliance Engineer	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 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)	X NO				

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

On August 19, 1985, during the unit 1 refueling outage, plant personnel discovered seven nails installed on the unit 1 main steam line axial support tie rod pins instead of the specified 3/8 inch stainless steel cotter pins. A subsequent inspection of unit 2 revealed one missing cotter pin. No problems were identified on unit 3. An evaluation determined the nails were meeting the intended purpose of the cotter pins; but because of the harsh steam tunnel environment, long-term corrosion could eventually cause the nails to fail. The nails have been replaced with cotter pins on unit 1 and the missing cotter pin replaced on unit 2.

IE22,1/1

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 4 4	— 0 1	0 2 OF 0 2

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

Unit 1 and unit 2 were in refueling outages, and unit 3 was in cold shutdown when the condition was discovered. Unit 1 and unit 2 were affected by this condition.

On August 19, 1985, plant personnel performing local leak rate testing on containment isolation valves discovered seven nails installed on the unit 1 main steam line (SB) axial support tie rod pins instead of the required 3/8 inch stainless steel cotter pins. The tie rods are located just outboard of primary containment and prevent axial movement of the main steam line between the outboard main steam isolation valve and primary containment (NH). Inspections in the unit 2 steam tunnel revealed one missing cotter pin on an axial support. No problems were identified during inspection of the unit 3 steam tunnel.

Further investigation of this problem indicated that these supports were inspected and verified to be acceptable in 1981. Apparently during maintenance activities in the area, the cotter pins had been removed and replaced with nails. The personnel responsible for the installation of the nails cannot be identified because of the quantity of work performed in the area and the period of time in which it could have occurred.

The tie rods provide axial restraint of the main steam line during operation of the unit. An evaluation of the as-found condition determined the intended purpose of restraining the rod pins was being maintained, thus the integrity of the tie rod support had not been affected. Because of the steam tunnel environment, long term corrosion of the nails could eventually cause the nails to fail in such a manner that the clevis pin movement would not be restrained. If the clevis pin vibrated loose, the axial restraint could not perform its intended function and the main steam line outside of containment could be damaged. The worst condition that could occur, a main steam line break, is an analyzed condition from which the unit can be safely shutdown.

The nails on unit 1 have been replaced by 3/8 inch stainless steel cotter pins. The missing cotter pin on unit 2 was also replaced.

Responsible Plant Section - N/A

Previous Events - None

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

December 6, 1985

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

Dear Sir:

TENNESSEE VALLEY AUTHORITY - BROWNS FERRY NUCLEAR PLANT (BFN) UNIT 1 - DOCKET NO. 50-259 - FACILITY OPERATING LICENSE DPR-68 - REPORTABLE OCCURRENCE REPORT BFRO-50-259/85044 R1

The enclosed report provides additional details concerning the use of unspecified material on axial restraints. This report is submitted in accordance with 10 CFR 50.73(a)(2)(v).

Very truly yours,

TENNESSEE VALLEY AUTHORITY

Robert L. Lewis
Acting Plant Manager
Browns Ferry Nuclear Plant

Enclosures
cc (Enclosures):
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U.S. Nuclear Regulatory Commission
Office of Inspection and Enforcement
Region II
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Atlanta, Georgia 30303

NRC Resident Inspector, BFN

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