NRC Form 366 (6-89) | U.S. NUCLEAR REGULATORY COMMISSION | Approved OMB No. 3150-0104 Expires 4/30/92

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 4

TITLE (4)
INSTALLATION OF NEW SNUBBERS WITHOUT FUNCTIONAL TESTING DUE TO UNCLEAR PROCEDURES

EVENT DAY (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
1 2	1 3	8 9	9 0	0 0 1	0 0	0 1	2 9	9 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)	50.73(a)(2)(v)	73.71(c)	
		20.405(a)(1)(ii)	50.36(c)(2)	50.73(a)(2)(vii)	X	OTHER (Specify in Abstract below and in Text, NRC Form 366A) Voluntary Report
		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 (AREA CODE)
Michael Lalor, Compliance Licensing Engineer	2 0 5 7 2 9 - 2 0 7 1

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)

As a result of a review on December 13, 1989, approximately 99 mechanical snubbers were determined not to have been functionally tested before their installation. These snubbers were installed on units 1, 2, and 3 systems between 1982 and 1985.

The cause of this event was procedures that did not clearly specify the post-modification testing required for new snubbers. When it was identified that a functional test was not specified as a postmodification test by the design changes for the new snubbers, there was uncertainty whether preservice test requirements were met. Additionally, Browns Ferry Technical Specifications do not require functional testing of new snubbers before their installation.

A voluntary report is submitted since the possibility of installing inoperable snubbers as the result of not performing functional testing at other plants could have significant consequences.

Although there are no regulatory, code, or site administrative requirements to functionally test mechanical snubbers before their installation, TVA considers it to be a good practice. The applicable site procedure will be revised to require functional testing of snubbers before their installation. A ten percent representative sample of the 33 unit 2 new mechanical snubbers has been functionally tested and determined to have been capable of performing their intended function. The remaining unit 1, 2, and 3 new mechanical snubbers that were not functionally tested have been placed into the population of existing snubbers for ongoing functional testing in accordance with the Technical Specification Inservice Inspection Requirements.

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	9 0	-- 0 0 1	-- 0 0	0 2 OF 0 4

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

DESCRIPTION OF EVENT

As a result of a review on December 13, 1989, approximately 99 mechanical snubbers in units 1, 2, and 3 were determined not to have been functionally tested before their installation. These snubbers were installed between 1982 and 1985 on systems including core spray [BG], residual heat removal [BO], reactor core isolation cooling [BN], high-pressure coolant injection [BJ], and main steam [SB] systems. The postmodification testing specified by the design changes for these snubbers was a visual inspection in accordance with American Society of Mechanical Engineers, Boiler and Pressure Vessel Code (ASME), Section XI.

Upon discovery of the event, a review of the regulatory, code, and site administrative documents was initiated to determine the proper postmodification testing requirements. These snubbers were considered to be new snubbers, rather than replacements, in that they had not been previously placed in service and were additions to the existing systems. Postmodification testing of new snubbers is required to be consistent with the applicable industry code and does not require functional testing before placing new snubbers into service. The applicable industry code for postmodification testing of snubbers is ASME Section XI, which requires only a visual inspection of new mechanical snubbers. Consequently, there are no code or plant administrative requirements to functionally test new mechanical snubbers before their installation. Additionally, the Browns Ferry Technical Specifications do not require functional testing before placing new snubbers into service.

The event was reviewed for reportability determination in accordance with site procedures. A review of the event by the Shift Technical Advisor determined that the event could be conservatively interpreted to be reportable in accordance with 10 CFR 50.72(b)(1)(i), and an four-hour, nonemergency notification was made to NRC on December 29, 1989. TVA has subsequently determined that the event is not reportable in accordance with 10 CFR 50.72 or 50.73 since the technical specifications do not require functional testing of new mechanical snubbers before their installation.

A voluntary report is submitted since the possibility of installing inoperable snubbers as the result of not performing functional testing at other plants could have significant consequences.

At the time the event was discovered, units 1 and 3 were defueled, and unit 2 was in cold shutdown with fuel in the reactor vessel and the head removed.

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	9 0	-- 0 0 1	-- 0 0	0 3 OF 0 4

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

CAUSE OF EVENT

The cause of this event was procedures that did not clearly specify the postmodification testing required for new snubbers. When it was identified that a functional test was not specified as a postmodification test by the design changes for the new snubbers, there was uncertainty whether preservice test requirements were met.

ANALYSIS OF EVENT

Snubbers are designed to prevent unrestricted pipe or component motion under dynamic loads resulting from an earthquake or severe transient, but allow for normal thermal motion during startup and shutdown. Performance of preoperational testing establishes the operability of the snubber before placing it in service. Not performing adequate testing could result in the installation of an inoperable snubber. Operation with an inoperable snubber(s) would result in an increase in the probability of structural damage to piping or components.

However, the new mechanical snubbers were determined to be capable of performing their intended function based on the required visual testing of each snubber performed at installation and the successful functional tests of a ten percent representative sample of the 33 unit 2 new mechanical snubbers. Therefore, this event had no potential safety significance.

CORRECTIVE ACTIONS

Upon discovery of the event, a review was initiated to determine the proper postmodification testing requirements. It was determined that there are no regulatory, code, or plant administrative requirement to functionally test new snubbers before their installation. The current site procedure regarding postmodification testing was revised before the discovery of this event to recommend such testing. This procedure will be revised to require functional testing of new snubbers before their installation.

A ten percent representative sample of the 33 unit 2 new mechanical snubbers has been functionally tested and determined to have been capable of performing their intended function. The remaining unit 1, 2, and 3 mechanical snubbers that were not functionally tested have been placed into the population of existing snubbers for ongoing functional testing in accordance with the Technical Specification Inservice Inspection Requirements.

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BROWNS FERRY UNIT 1	0 5 0 0 0 2 5 9	9 0	-- 0 0 1	-- 0 0	0 4 OF 0 4

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

PREVIOUS SIMILAR EVENTS

LER 260/87007,R1 discusses an event due to the failure to specify postmodification testing in the design change. That event involved the inability of the drywell control air primary containment isolation valves to close on the loss of motive air. The corrective actions for that cause included administrative programs to ensure design changes specify postmodification testing and are reviewed by cognizant personnel. Although functionally testing the valves to close on the loss of motive air is currently addressed by the Browns Ferry Technical Specification Surveillance Requirements, the valves were not addressed by the technical specifications at the time of that event. The programmatic corrective actions taken in the previous similar event were implemented after the snubber design changes associated with this event were issued.

COMMITMENT

The site procedure regarding postmodification testing will be revised by March 30, 1990, to require funcitonal testing of new snubbers before their installation.

* Energy Industry Identification System (EIIS) codes are identified in the text as [XX].