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 2	0 5 0 0 0 2 6 0	1 OF 0 3

TITLE (4) Inadequate Procedure Leads to Lapse in Special Requirements for Use of Temporary Lead Shielding

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 5 0 0 0
1 1	1 8	8 5	8 6	0 0 1	0 0	0 1	3 1	8 6		0 5 0 0 0

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)		50.36(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
	AREA CODE
Larry H. Coots	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 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)

To minimize radiation exposure of personnel during the current unit 2 refueling outage activities, the use of temporary lead shielding blankets was evaluated and approved. These safety evaluations identified special requirements to be implemented and maintained while this temporary alteration is in effect. One of these requirements was that the spent fuel pool storage gates were to be maintained closed while the lead shielding is in use. The gates were, however, removed between November 18-27 while the lead blankets were in use. Inadequate procedural controls to ensure maintenance of the safety evaluation special requirements were determined to be the cause. The spent fuel storage pool gates were closed on November 27, 1985, with a hold order issued to assure they remain closed. All outstanding temporary alterations are being reviewed to ensure special requirements were controlled. In addition, the administrative procedure controlling temporary alterations is being revised to assure special requirements are implemented and maintained during temporary alterations.

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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 an extended maintenance outage.

The special requirement of safety evaluations for adding temporary lead shielding to certain piping sections was not maintained.

Unit 2 was shut down on September 15, 1984, for refueling. To minimize radiation exposure of personnel, temporary shielding in the form of lead blankets is utilized on high radiation source rate piping sections. These piping sections included an equipment drain line, the control rod drive (AA) scram discharge header, residual heat removal (BO) line inside the drywell, reactor water cleanup (CE) inside the drywell, and specified horizontal runs of the recirculation system (AD). The plans for installing the temporary lead shielding included a safety evaluation to access the impact of the additional loading on piping, supports, structural supports, and their seismic qualification status. These evaluations identified special requirements to be implemented prior to installing and while the temporary lead shielding was installed. These special requirements included; all fuel to be removed and stored in the spent fuel pool with the spent fuel pool gates closed, removal of the temporary lead shielding prior to fuel reload, and a special evaluation if a seismic event occurred while the temporary lead shielding was installed.

On November 25, 1985, the unit 2 spent fuel pool gates were discovered to have previously been removed. The gates had been removed on November 18, 1985, to allow transfer of spent incore monitors to the fuel pool. The gates were reinstalled by November 27, 1985, with a hold order issued to prevent removal without the shift engineer's approval. The above systems were not required to be operable during this time period since all fuel had been removed from the reactor (unit 2 core unloading complete on October 13, 1984) and stored in the spent fuel storage pool. During the time period that the spent fuel pool gates were removed (8 days), the possibility of a seismic event existed and could have occurred. However, the probability of an operational bases earthquake (.1g ground acceleration at the site) occurring during this time period is on the order of $.4 \times 10^{-4}$ occurrences which is considered a low risk. Therefore, it is extremely unlikely that a seismic event could have affected the system piping.

The primary cause is the lack of adequate procedural details to assure that the special requirements of safety evaluations for temporary alterations are translated into the proper administrative controls. Standard Practice BF-8.2, Temporary Alterations, will be revised to require that all the affected systems and equipment be identified and tagged, if necessary, to maintain the special requirements identified in a safety evaluation. Standard Practice BF-8.2 will be revised by February 28, 1986. Also, a review of all outstanding temporary alterations on unit 2 was conducted to ensure that similar requirements were controlled; and a review of the remaining temporary alterations is in progress.

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

The difference between the report date and event date is as a result of delayed discovery, and a reevaluation to determine if the spent fuel storage pool gates closed requirement was valid. This condition was determined reportable by the site staff on January 6, 1986.

Responsible Plant Section - ENGR

Previous Events - None

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

January 31, 1986

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

Dear Sir:

TENNESSEE VALLEY AUTHORITY - BROWNS FERRY NUCLEAR PLANT UNIT 2 - DOCKET NO. 50-260 - FACILITY OPERATING LICENSE DPR-52 - REPORTABLE OCCURRENCE REPORT BFRO-50-260/86001

The enclosed report provides details concerning inadequate procedure leading to lapse in special requirements for use of temporary lead shielding. 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

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cc (Enclosures):
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NRC Resident Inspector, Browns Ferry Nuclear Plant

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