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 AUTH. NAME AUTHOR AFFILIATION  
 AUSTIN, S.W. Tennessee Valley Authority  
 ZERINGUE, O.J. Tennessee Valley Authority  
 RECIP. NAME RECIPIENT AFFILIATION

SUBJECT: LER 93-002-00: on 930131, determined that MSIV on MS line C found to have leakage in excess of TS. Cause not identified. Licensee will issue followup rept detailing corrective actions. W/930226 ltr.

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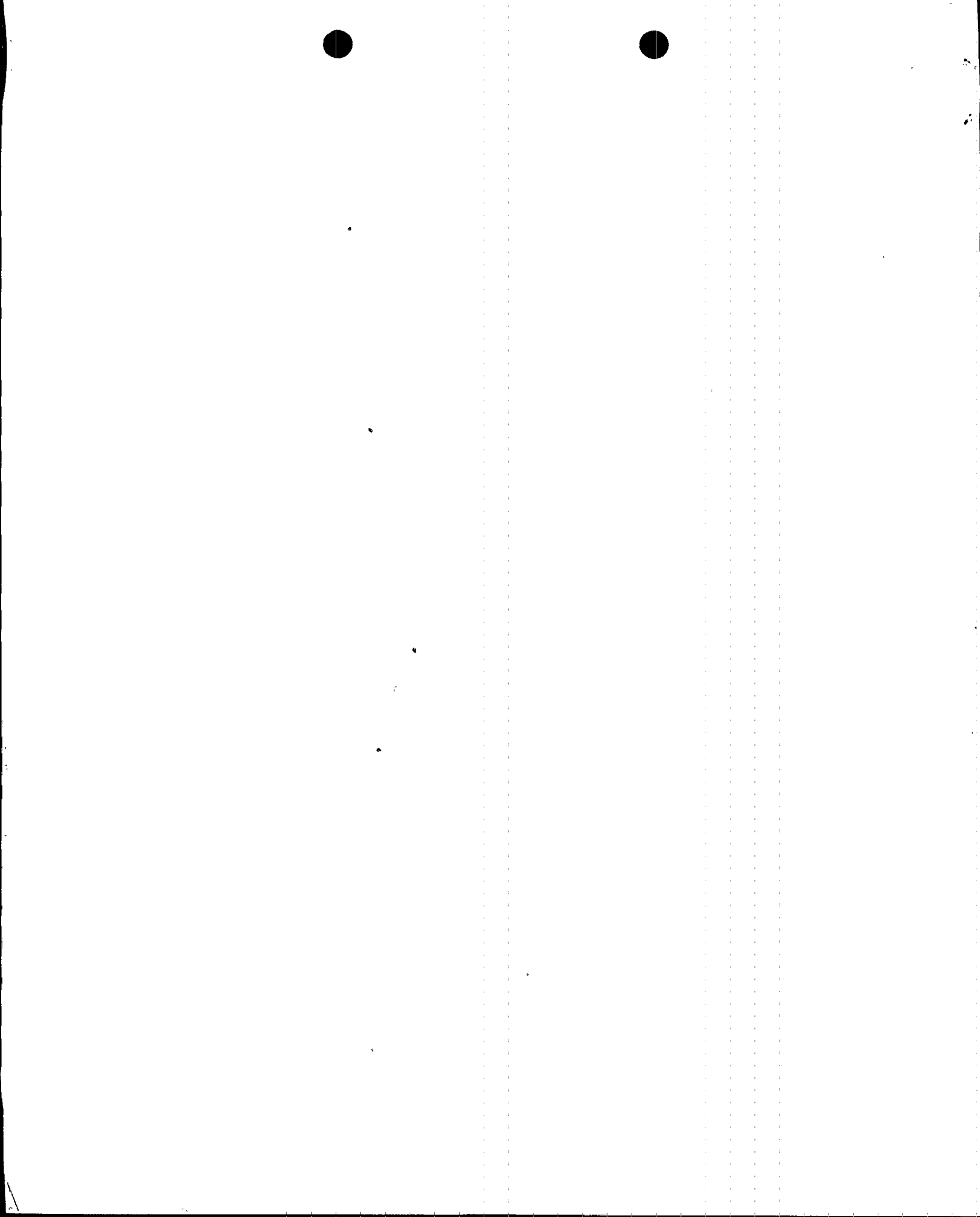
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INTERNAL:	ACNW		2	2		ACRS		2	2
	AEOD/DOA		1	1		AEOD/DSP/TPAB		1	1
	AEOD/ROAB/DSP		2	2		NRR/DE/EELB		1	1
	NRR/DE/EMEB		1	1		NRR/DORS/OEAB		1	1
	NRR/DRCH/HHFBHE		1	1		NRR/DRCH/HICB		1	1
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	RES/DSIR/EIB		1	1		RGN2 FILE 01		1	1
EXTERNAL:	EG&G BRYCE, J.H		2	2		L ST LOBBY WARD		1	1
	NRC PDR		1	1		NSIC MURPHY, G.A		1	1
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Tennessee Valley Authority, Post Office Box 2000, Decatur, Alabama 35609-2000

O. J. "Ike" Zeringue  
Vice President, Browns Ferry Nuclear Plant

FEB 26 1993

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

Dear Sir:

TVA - BROWNS FERRY NUCLEAR PLANT (BFN) UNITS 1, 2, AND 3 - DOCKET NOS. 50-259, 260, AND 296 - FACILITY OPERATING LICENSE DPR-33, 52, AND 68 - LICENSEE EVENT REPORT LER 50-260/93002

The enclosed report provides details concerning main steam line isolation valves exceeding allowable leakage during testing.

This report is submitted in accordance with 10 CFR 50.73(a)(2)(ii).

Sincerely,

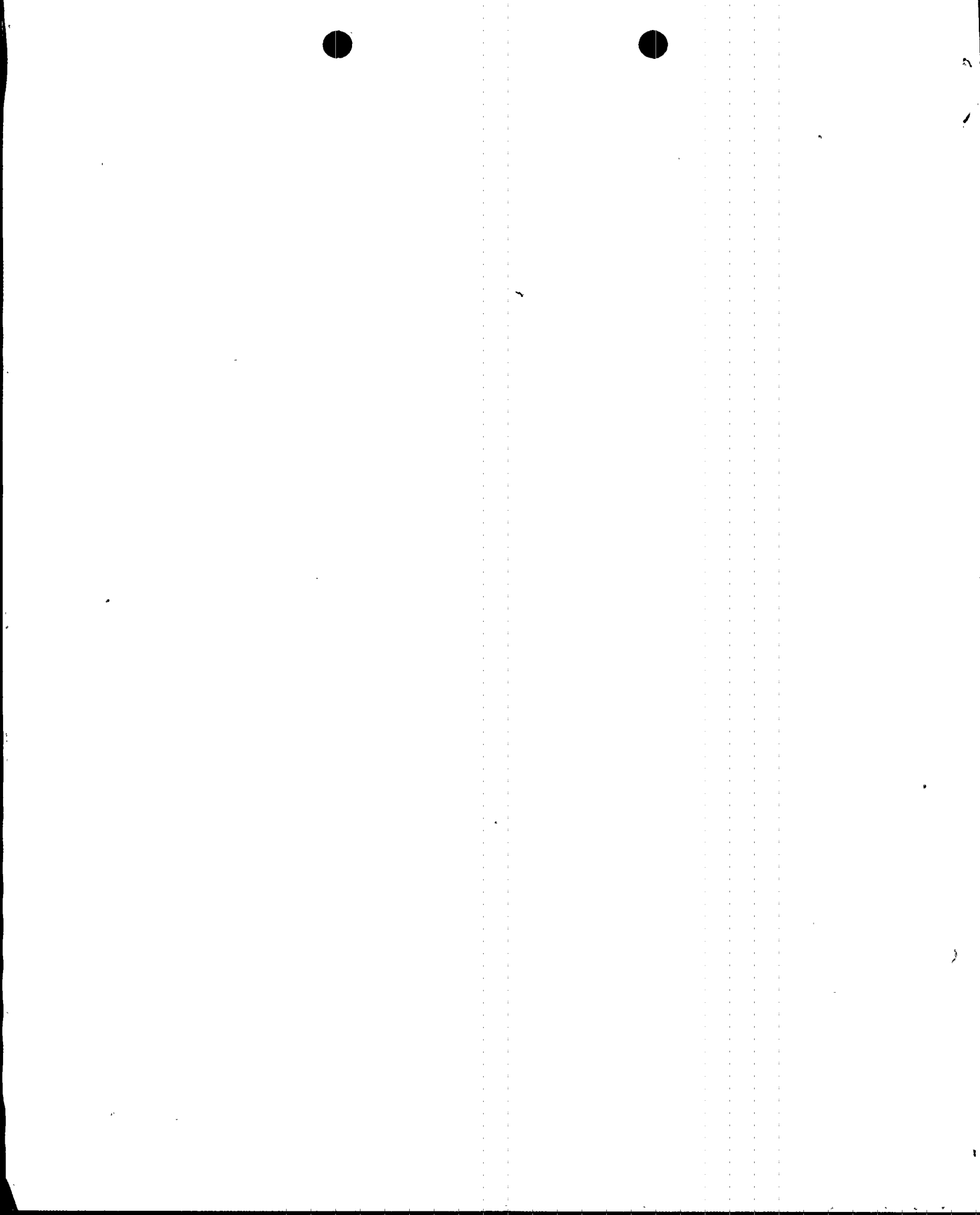
O.J. Zeringue

Enclosure

cc: See page 2

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PDR ADCK 05000260  
S PDR



## U.S. Nuclear Regulatory Commission

FEB 26 1993

## cc (Enclosure):

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U.S. Nuclear Regulatory Commission  
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Rockville, Maryland 20852



## LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)

Browns Ferry Nuclear Plant (BFN) Unit 2

DOCKET NUMBER (2) | PAGE (3)

05100012 | 6 | 010F | 05

TITLE (4) Main Steam Line Isolation Valves Exceeding Allowable Leakage During Testing.

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)										
0	1	3	19	3	9	3	0	0	2	0	0	0	2	2	6	9	3	N/A	05100010	
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) 50.73(a)(2)(v) 73.71(c)																		
0		20.405(a)(1)(ii) 50.36(c)(2) 50.73(a)(2)(vii) OTHER (Specify in																		
0		20.405(a)(1)(iii) 50.73(a)(2)(i)(B) 50.73(a)(2)(viii)(A) Abstract below and in																		
0		20.405(a)(1)(iv) X 50.73(a)(2)(ii) 50.73(a)(2)(viii)(B) Text, NRC Form 366A)																		
		20.405(a)(1)(v) 50.73(a)(2)(iii) 50.73(a)(2)(x)																		

## LICENSEE CONTACT FOR THIS LER (12)

NAME

S. W. Austin

TELEPHONE NUMBER

AREA CODE

2 | 0 | 5 | 7 | 2 | 9 | - | 2 | 0 | 7 | 0

## 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 MONTH | DAY | YEAR

SUBMISSION

X | YES (If yes, complete EXPECTED SUBMISSION DATE) | NO

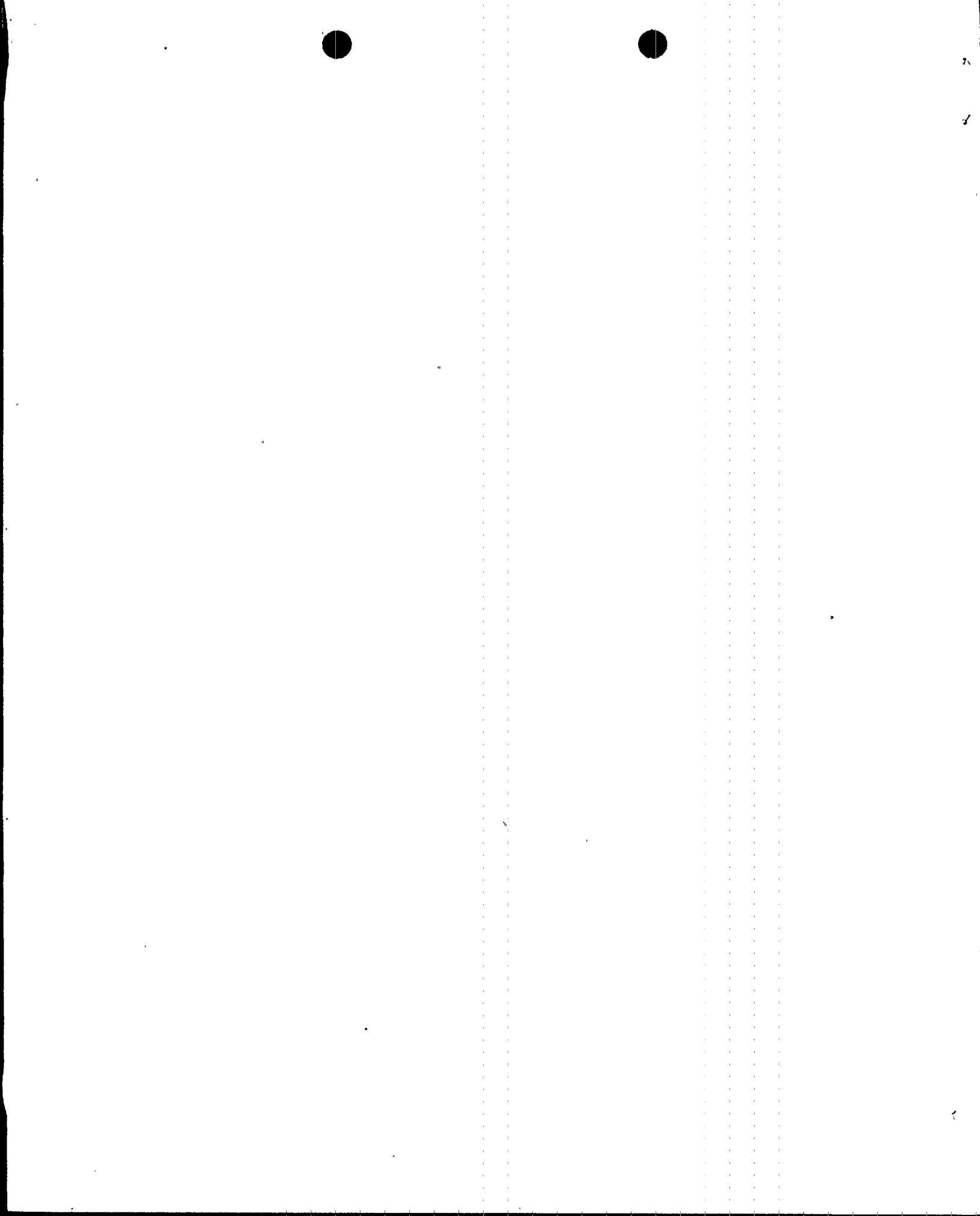
DATE (15) 0 | 6 | 2 | 7 | 9 | 3

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

On January 31, 1993, at 1030 hours during performance of local leak rate testing, it was determined that the main steam system isolation valves (MSIV) on main steam line "C" were found to have leakage in excess of the technical specification limit of 11.5 standard cubic feet per hour (SCFH).

The root cause of this event has not been identified. A preliminary investigation into the cause has concluded that the inboard MSIV may be leaking more than the allowed 11.5 SCFH.

Corrective actions will be to determine which MSIV is leaking, repair the valve, and retest this valve. TVA will issue a followup report detailing the corrective actions.





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 2	015000026093	--	0	0	2	--	0	0	0	2	OF	05

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

I. PLANT CONDITIONS

Unit 2 was in cold shutdown for the Unit 2 cycle 6 refueling outage. Units 1 and 3 were defueled.

II. DESCRIPTION OF EVENT

A. Event:

On January 31, 1993, at 1030 hours during performance of local leak rate testing, it was determined that the main steam [SB] system isolation valves (ISV), on main steam line "C" were found to have leakage in excess of the technical specifications (TS) limit of 11.5 standard cubic feet per hour (SCFH) allowed for a main steam isolation valve (MSIV). Furthermore the leak rate of the valve exceeded the 655.9 SCFH allowed for total primary containment. The leak rate in steamline "C" was determined to be 1320.26 SCFH.

TVA reports this in accordance with 10 CFR 50.73 (a)(2)(ii)(A) as any event or condition that resulted in the condition of the nuclear plant, including its principal safety barriers, being seriously degraded or that resulted in the nuclear plant being in an unanalyzed condition that significantly compromised plant safety.

B. Inoperable Structures, Components, or Systems that Contributed to the Event:

None.

C. Dates and Approximate Times of Major Occurrences:

January 31, 1993, at 1030 CST	Primary containment total leak rate is determined to have exceeded acceptance criteria.
January 31, 1993, at 1420 CST	TVA makes a four-hour nonemergency notification to NRC in accordance with 10 CFR 50.72(b)(2)(i).



LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATION

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)						PAGE (3)			
Browns Ferry Unit 2	05000260913--	YEAR		SEQUENTIAL NUMBER		REVISION NUMBER					
		05	00	02	--	00	00	03	OF	05	

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

D. Other Systems or Secondary Functions Affected:

None.

E. Method of Discovery:

The leak rate was determined to be unacceptable during performance of the surveillance instruction that determined the amount of leakage through main steam line "C" primary containment isolation valves.

F. Operator Actions:

None.

G. Safety System Responses:

None.

III. CAUSE OF THE EVENT

A. Immediate Cause:

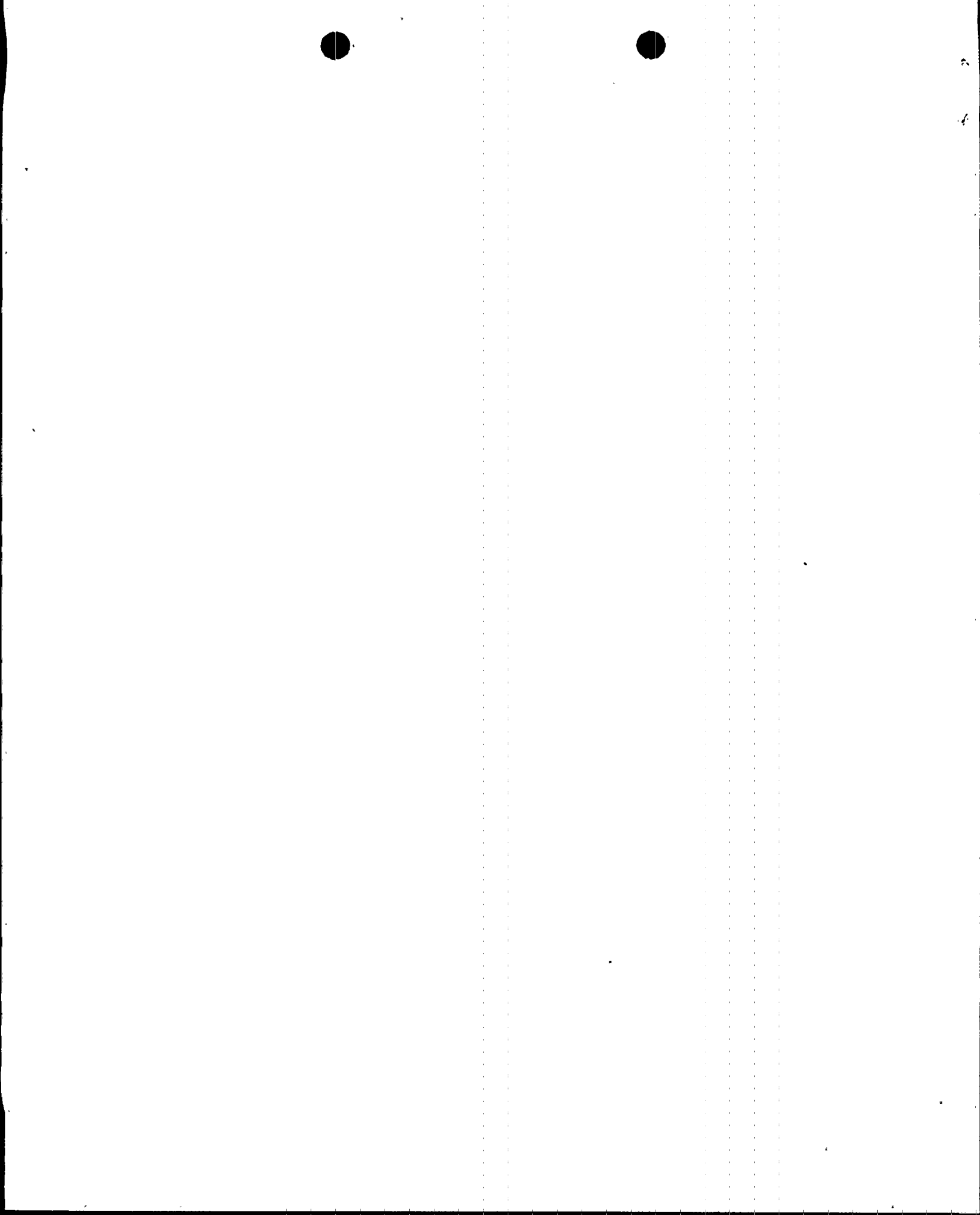
The immediate cause of this event was leakage of one or both of the MSIVs leaking an amount greater than the TS limit.

B. Root Cause:

The root cause of this event has not been identified. A preliminary investigation into the cause indicates that the inboard main steam isolation valve may be leaking. However, TVA will not know the root cause until after the inboard and outboard isolation valves have been inspected.

C. Contributing Factors:

None.



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 2	0500026093	--	002	--	00	00	04	OF	05		

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

## IV. ANALYSIS OF THE EVENT

Each main steam line has two isolation valves, one on the inside and one on the outside of primary containment. The isolation valves prevent radiation release in excess of 10 CFR 100 guidelines in the event of a steam line break outside primary containment. The valves also limit inventory loss during a loss of coolant accident. Technical specifications require that the MSIVs be tested for leakage during each refueling outage. If the leakage rate for any one MSIV exceeds 11.5 SCFH, TS require that the valve be repaired and retested to correct the condition. TVA will determine which valve is leaking, repair the valve, and retest it.

## V. CORRECTIVE ACTIONS

A. Immediate Corrective Actions:

None.

B. Corrective Actions to Prevent Recurrence:

1. TVA will determine which MSIV is leaking, repair the valve, and retest this valve.
2. TVA will issue a followup report detailing the corrective actions.

## VI. ADDITIONAL INFORMATION

A. Failed Components:

None.

B. Previous LERs on Similar Events:

TVA has previously issued reports detailing multiple failures of MSIVs to meet the required acceptance criteria. Subsequently, TVA has instituted a MSIV upgrade program. This program has greatly reduced the number of failures. Therefore, TVA concludes the corrective action was adequate to minimize recurrence.



LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATION

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)	PAGE (3)
Browns Ferry Unit 2		SEQUENTIAL	REVISION
		YEAR	NUMBER

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

VII. COMMITMENTS

1. TVA will determine which MSIV is leaking, repair the valve, and retest it. This will be accomplished prior to restart from the Unit 2 cycle 6 outage.
2. TVA will issue a followup report detailing corrective action. The report will be issued 30 days, after completion of the Unit 2 cycle 6 refueling outage.

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

