

CATEGORY 1

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 9705210262 DOC.DATE: 97/05/14 NOTARIZED: NO DOCKET #
FACIL: 50-296 Browns Ferry Nuclear Power Station, Unit 3, Tennessee 05000296
AUTH.NAME AUTHOR AFFILIATION
AUSTIN, S. Tennessee Valley Authority
CRANE, C.M. Tennessee Valley Authority
RECIP.NAME RECIPIENT AFFILIATION

SUBJECT: LER 97-004-00: on 970414, unplanned manual start of EDG during scheduled redundant start test occurred. Caused by personnel error. EDG 3D shutdown & returned to pre-event configuration. W/970514 ltr.

DISTRIBUTION CODE: IE22T COPIES RECEIVED: LTR 1 ENCL 1 SIZE: 6
TITLE: 50.73/50.9 Licensee Event Report (LER), Incident Rpt, etc.

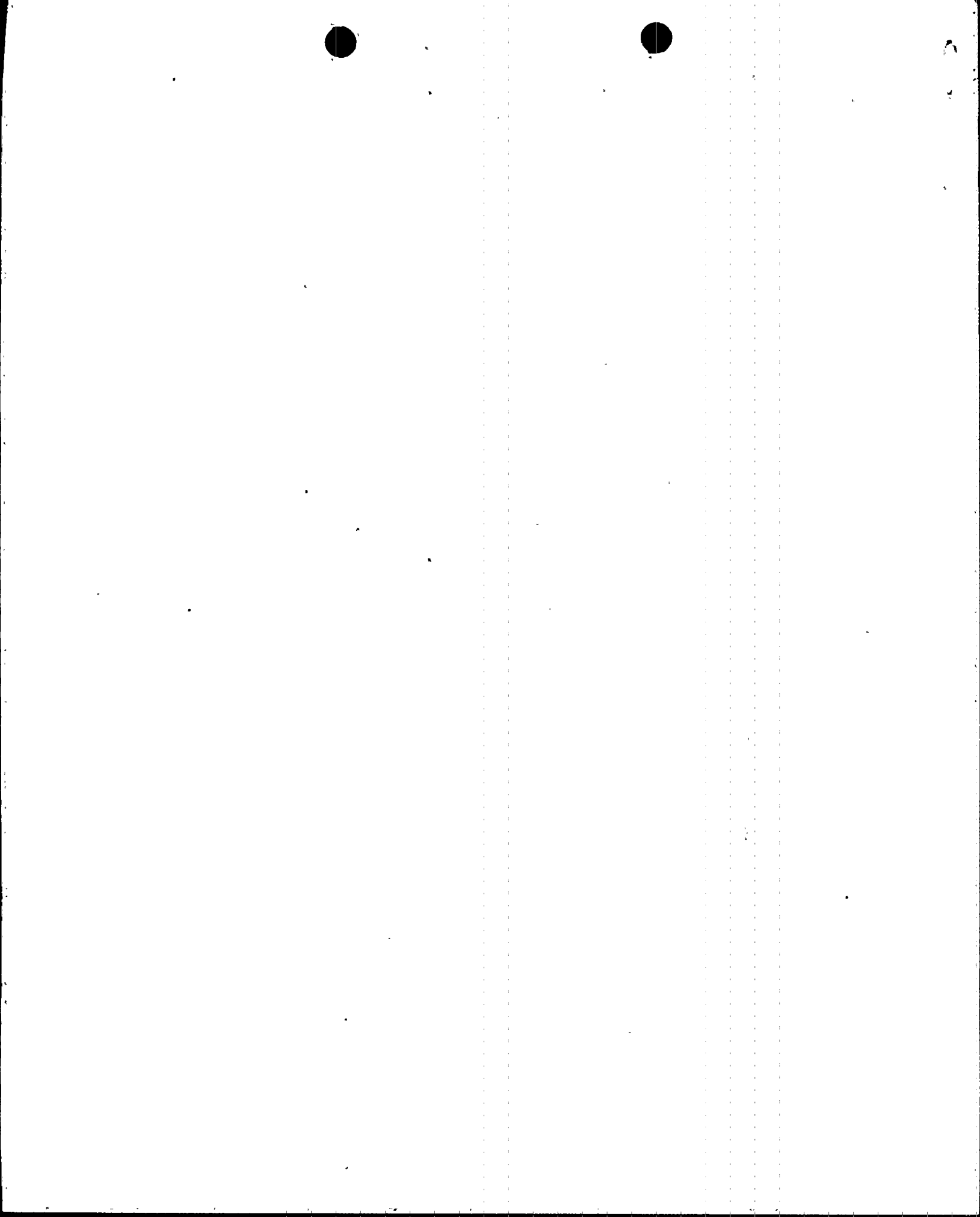
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Tennessee Valley Authority, Post Office Box 2000, Decatur, Alabama 35609-2000

Christopher M. (Chris) Crane
Vice President, Browns Ferry Nuclear Plant

May 14, 1997

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

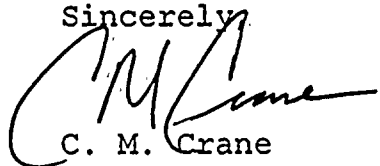
10 CFR 50.73

Dear Sir:

BROWNS FERRY NUCLEAR PLANT (BFN) - UNITS 1, 2, AND 3 - DOCKET
NOS. 50- 296 - FACILITY OPERATING LICENSE DPR-68 - LICENSEE
EVENT REPORT 50-296/97004

The enclosed report provides details concerning an unplanned manual start of an emergency diesel generator. This report is submitted in accordance with 10 CFR 50.73 (a)(2)(iv) as a condition that resulted in a manual or an automatic actuation of an engineered safety feature.

Sincerely,



C. M. Crane

Enclosure

cc (Enclosure):

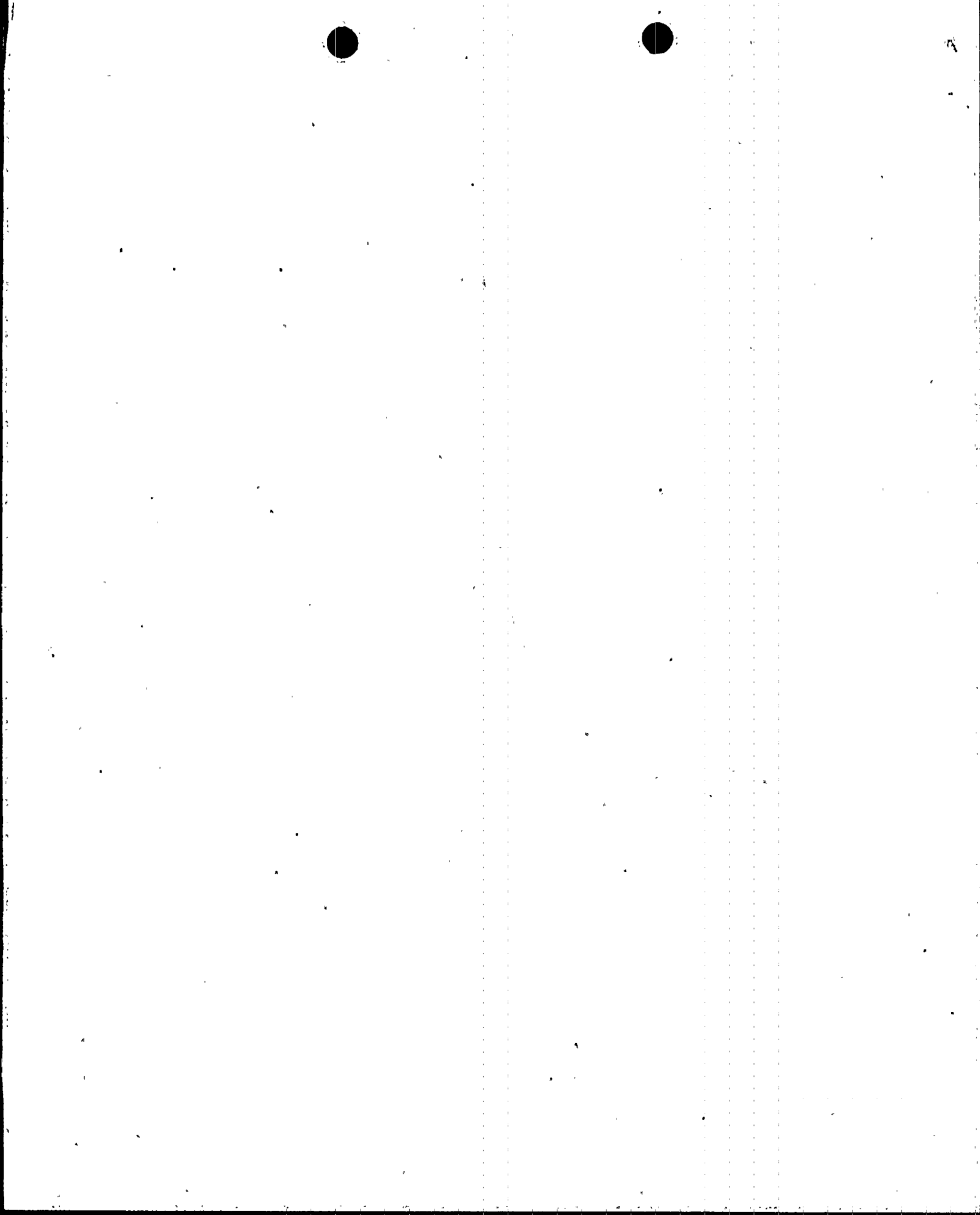
Mr. Mark S. Lesser, Branch Chief
U.S. Nuclear Regulatory Commission
Region II
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Suite 23T85
Atlanta, Georgia 30323

NRC Resident Inspector
Browns Ferry Nuclear Plant
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Mr. J. F. Williams, Project Manager
U.S. Nuclear Regulatory Commission
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9705210262 970514
PDR ADOCK 05000296
S PDR





LICENSEE EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS MANDATORY INFORMATION COLLECTION REQUEST: 50.0 HRS. REPORTED LESSONS LEARNED ARE INCORPORATED INTO THE LICENSING PROCESS AND FED BACK TO INDUSTRY. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (T-6 F33), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555

FACILITY NAME (1)

Browns Ferry Unit 3

DOCKET NUMBER (2)

05000296

PAGE (3)

1 OF 5

TITLE (4)

Unplanned Manual Start of an Emergency Diesel Generator During a Scheduled Redundant Start Test

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 NAME	DOCKET NUMBER
04	14	97	97	-- 004	-- 00	05	14	97	N/A	
OPERATING MODE (9)		N	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)							
POWER LEVEL (10)		100	20.2201(b)			20.2203(a)(2)(v)			50.73(a)(2)(i)	50.73(a)(2)(viii)
			20.2203(a)(1)			20.2203(a)(3)(i)			50.73(a)(2)(ii)	50.73(a)(2)(x)
			20.2203(a)(2)(i)			20.2203(a)(3)(ii)			50.73(a)(2)(iii)	73.71
			20.2203(a)(2)(ii)			20.2203(a)(4)			X 50.73(a)(2)(iv)	OTHER
			20.2203(a)(2)(iii)			50.36(c)(1)			50.73(a)(2)(v)	Specify in Abstract below or in NRC Form 366A
			20.2203(a)(2)(iv)			50.36(c)(2)			50.73(a)(2)(vii)	

LICENSEE CONTACT FOR THIS LER (12)

NAME

Steve Austin, Licensing Engineer

TELEPHONE NUMBER (Include Area Code)

(205) 729-2070

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURE?	REPORTABLE TO NPRDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE).

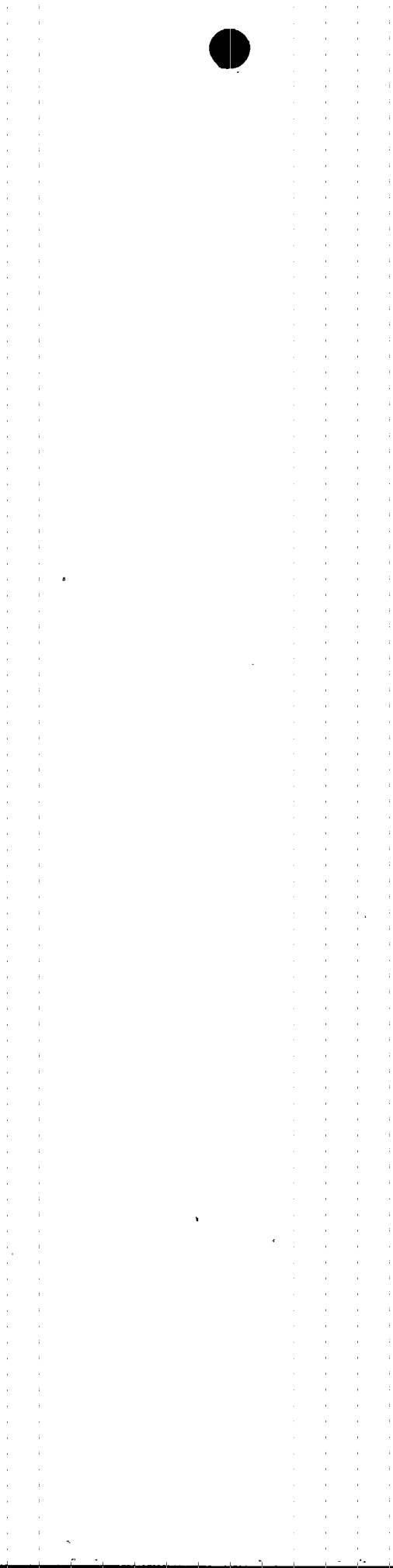
X NO

EXPECTED SUBMISSION DATE (15)

MONTH DAY YEAR

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On April 14, 1997, at 1142 hours Central Daylight Time (CDT), an unexpected Engineered Safety Feature actuation occurred when Emergency Diesel Generator (EDG) 3D was inadvertently manually started. During the scheduled performance of the Diesel Generator 3C Redundant Start Test, EDG 3D was manually started from the Unit 3 Main Control Room. EDG 3D was returned to the pre-event configuration by 1153 CDT. The root cause of the event was personnel error. During the performance of the redundant start test, the operator was requested to start EDG 3C; however, the individual started EDG 3D. The operator failed to properly utilize touch STA²R (Stop,Think, Ask, Act, and Review) verification process during the test. Personnel corrective actions were administered to the individual. A briefing on the event was provided to appropriate plant personnel. The briefing package was reviewed with the shift crews. Personnel activities will be evaluated to ensure management expectations for use of touch STA²R verification process are met. TVA is providing this report in accordance with 10 CFR 50.73 (a)(2)(iv), as any event or condition that resulted in manual or automatic actuation of any engineered safety feature, including the reactor protection system.



LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

FACILITY NAME (1)	DOCKET	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Browns Ferry Unit 3	05000296	97 --	004 --	00	2 of 5

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

I. PLANT CONDITIONS

Units 2 and 3 were at approximately 100 Percent Power. Unit 1 was shutdown and defueled.

II. DESCRIPTION OF EVENT

A. Event

On April 14, 1997, at 1142 hours Central Daylight Time (CDT), an unexpected Engineered Safety Feature (ESF) [JE] actuation occurred when Emergency Diesel Generator (EDG) [EK] 3D was inadvertently manually started from the Unit 3 Main Control room. During the scheduled performance of the Diesel Generator 3C Redundant Start Test, the operator [utility, licensed] was requested to start EDG 3C; however, the individual started EDG 3D. Emergency Diesel Generator 3D was in standby alignment, and because there was no low voltage condition present on Shutdown Board 3D [EB], the EDG fast started and ran normally with the output breaker [BKR] open.

The affected EDG was returned to pre-event configuration by 1153 hours CDT. All systems responded as expected during the ESF.

This event is reportable in accordance with 10 CFR 50.73 (a)(2)(iv), as any event or condition that resulted in manual or automatic actuation of any engineered safety feature including, the reactor protection system.

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

None.

C. Dates and Approximate Times of Major Occurrences:

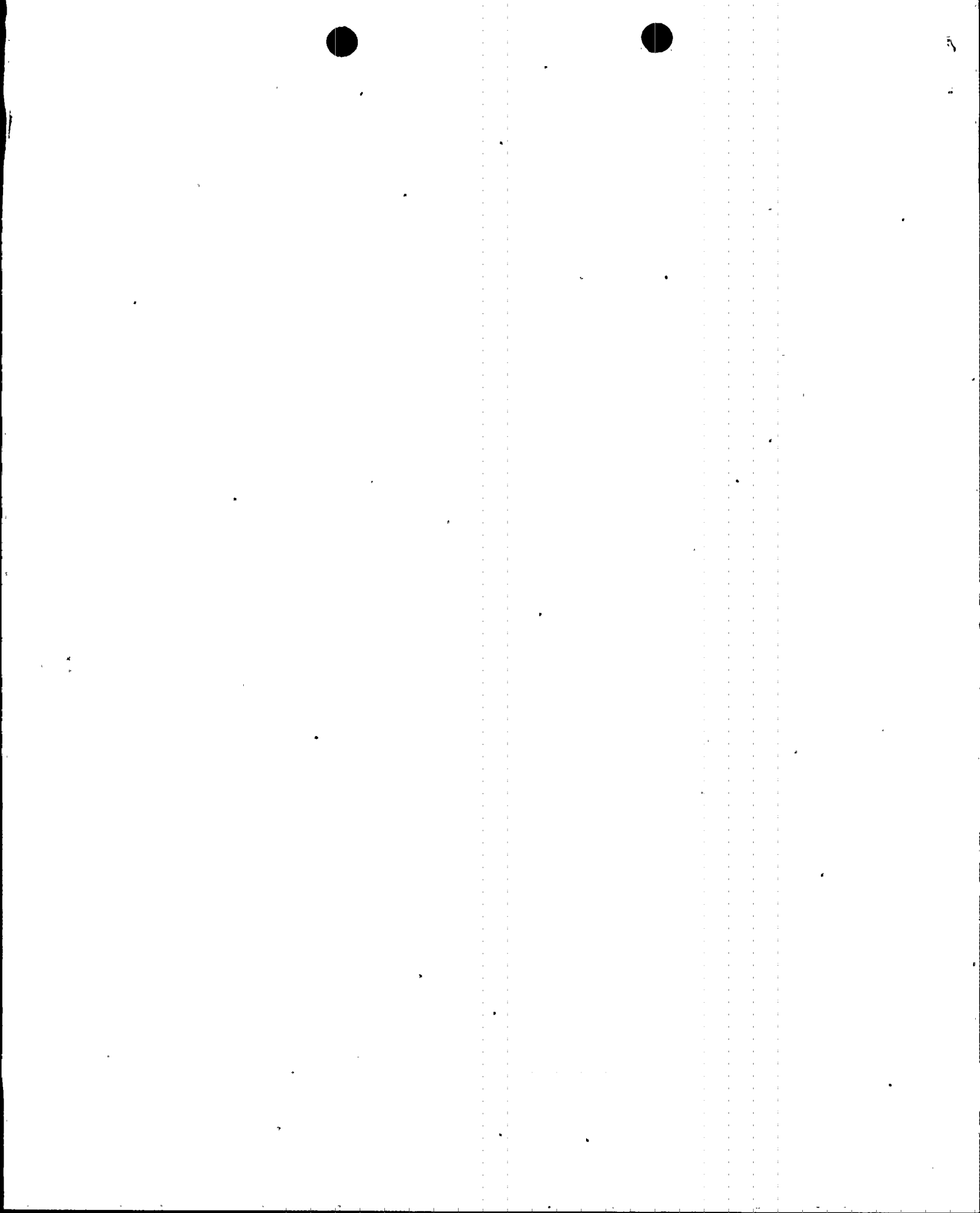
April 14, 1997 at 1142 CDT Emergency Diesel Generator 3D was inadvertently started.

April 14, 1997 at 1153 CDT The EDG was returned to pre-event status.

April 14, 1997 at 1405 CDT TVA made a 4 hour non-emergency notification to NRC in accordance with 10 CFR 50.72 (b)(2)(ii).

D. Other Systems or Secondary Functions Affected:

None.



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

E. Method of Discovery:

The Unit 3 Operator received an alarm indicating that EDG 3D started.

F. Operator Actions:

Operator actions taken during this ESF were as expected.

G. Safety System Responses:

The EDG responded as expected for this type of event.

III. CAUSE OF THE EVENT

A. Immediate Cause:

The immediate cause of the EDG start was that a manual start signal was initiated from the Unit 3 main control room.

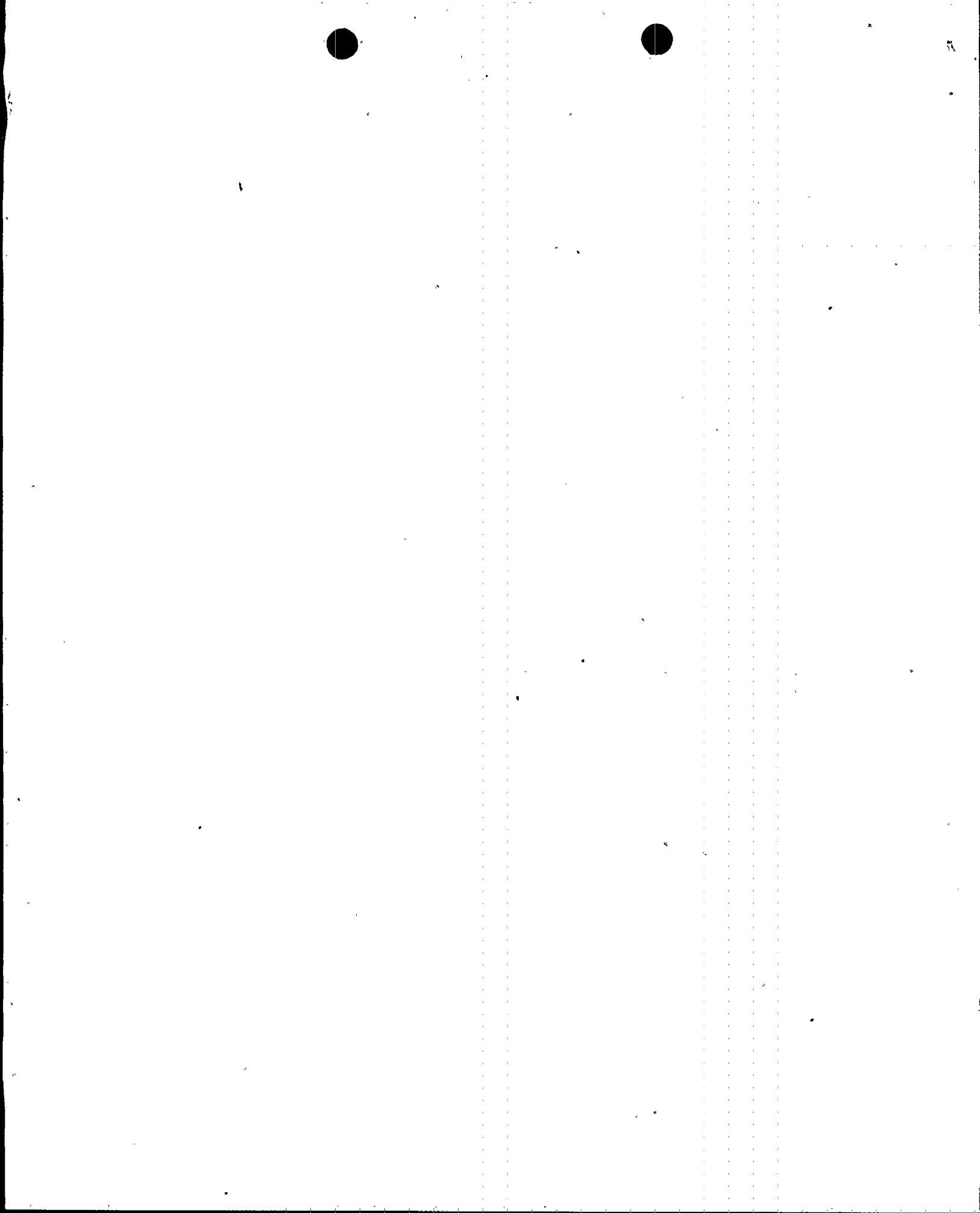
B. Root Cause:

The root cause of the event was personnel error due to inattention to detail. During performance of the redundant start test, the operator was requested to manually start EDC 3C. However, the individual instead started EDG 3D. The individual failed to properly utilize the touch STA²R (Stop, Think, Ask, Act, and Review) verification process prior to starting the EDG.

During the starting sequence for ECG 3C, the operator was performing the self checking verification process. However, prior to completing the process, the individual turned away from the EDG panel to verify the proper step in the procedure. When the individual turned back to start EDG 3C, he inadvertently started EDG 3D. After interrupting himself during the touch STA²R verification process, the individual did not re-perform the verification process to ensure he was about to start the appropriate EDG.

C. Contributing Factors:

Training did not adequately address the touch STA²R verification process requirements. The licensed operator requalification lesson plan on verification does not include the necessity to completely re-perform the verification process if the individual performing a task is interrupted.



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

IV. ANALYSIS OF THE EVENT

The EDGs are part of the standby AC power system which provides a highly reliable source of power as required for Emergency Core Cooling Systems. The EDGs ensure that no credible event can disable the power supply for core standby cooling functions or their supporting systems/components.

In this event the EDG and associated components performed as designed. Operations personnel immediately identified the cause of the ESF actuation and took appropriate actions to restore the affected systems to the pre-event configuration. Therefore, this event did not affect the health and safety of the plant personnel or the public.

V. CORRECTIVE ACTIONS

A. Immediate Corrective Actions:

Emergency Diesel Generator 3D was shutdown and returned to the pre-event configuration. The individual involved in the EDG start was removed from watch standing position on Unit 3 and reassigned to the nonoperating unit.

B. Corrective Actions to Prevent Recurrence:

The individual involved in the event received retraining on the touch STA²R verification process. Personnel corrective actions in accordance with TVA policy were administered. This individual was subsequently returned to an assignment on an operating unit. His activities will be evaluated to ensure management expectations for use of the touch STA²R verification process are met.

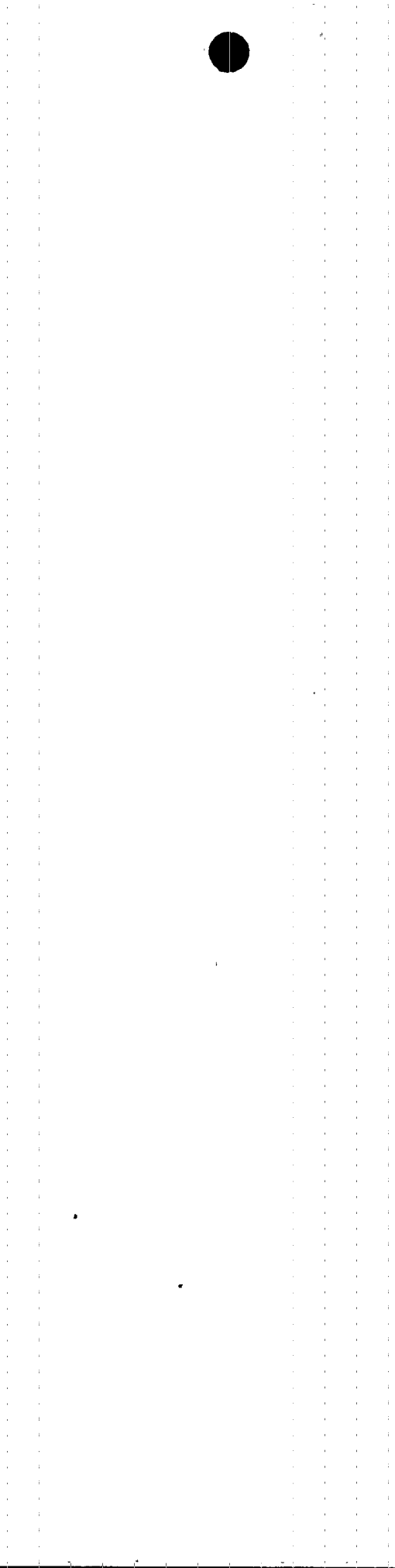
Operations management will perform additional observations to ensure management expectations on the use of the touch STA²R verification process is understood, enforced, and adhered to by shift personnel¹.

A briefing package on this event was issued to appropriate BFN personnel. The package was reviewed with the shift crews by operations management. It emphasized attention to detail and intrusiveness in performance of activities at BFN.

TVA will review the Operator Training in the area of self-

¹

TVA does not consider this corrective action a Regulatory Commitment. TVA's corrective action program will track completion of the action.



LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
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TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

checking and, as necessary, revise the training to ensure reperformance of self-checking is required if the process is interrupted or if the performer is distracted prior to the completion of the step or action².

VI. ADDITIONAL INFORMATION

A. Failed Components:

None.

B. Previous LERs on Similar Events:

There have been several LERs issued in which, due to a personnel error, one or more EDGs were inadvertently started. However, no previous events were identified where an operator manually started the wrong EDG during a scheduled test.

VII. COMMITMENTS

None.

Energy Industry Identification System (EIIS) system and component codes are identified in the text with brackets (e.g., [XX]).

² TVA does not consider this corrective action a Regulatory Commitment. TVA's corrective action program will track completion of the action.

