

NRC DISTRIBUTION FOR PART 50 DOCKET MATERIAL

FILE NUMBER
INCIDENT REPORT

TO:

MR. NORMAN C. MOSELEY

FROM:

TENNESSEE VALLEY AUTHORITY
CHATTANOOGA, TENN.DATE OF DOCUMENT
5/12/76DATE RECEIVED
5/14/76☒ LETTER
☒ ORIGINAL
☐ COPY☐ NOTORIZED
☒ UNCLASSIFIEDH. S. FOX
PROP

INPUT FORM

NUMBER OF COPIES RECEIVED
NONE SIGNED

DESCRIPTION

LTR: TRANS THE FOLLOWING:

PLANT NAME:

Browns Ferry #2

ENCLOSURE

LICENSEE EVENT RPT. (RO 50-260/76 3 W) ON
4/12/76 CONCERNING FIVE REED RELAY FAILURES
BEING DISCOVERED DURING RMCS RETESTING.ACKNOWLEDGED
DO NOT REMOVENOTE: IF PERSONNEL EXPOSURE IS INVOLVED
SEND DIRECTLY TO KREGER/J. COLLINS

SAFETY

FOR ACTION/INFORMATION

ENVIRO

5/17/76

RJL

☒ BRANCH CHIEF: PURPLE
☐ W/3 CYS FOR ACTION
☒ LIC. ASST: SHEPPARD
☐ W/ / CYS
ACRS /6 CYS HOLDING/SENT TO LA

INTERNAL DISTRIBUTION

☒ REG FILE
☒ NRC PDR
☒ I & E (2)
☒ MIPC (3)
☒ SCHROEDER/IPPOLITO
☒ HOUSTON
☒ NOVAK/CHECK
☒ GRIMES/SCHWENCER (1) EA
☒ CASE
☒ F. WILLIAMS
☒ HANAUER
☒ TEDESCO/MACCARY
☒ EISENHUT
☒ BAER
☒ SHAO
☒ VOLLMER/BUNCH
☒ KREGER/J. COLLINS

EXTERNAL DISTRIBUTION

☒ LPDR: ATHENS, AL.
☒ TIC
☒ NSIC

CONTROL NUMBER

4887

100

100

100

100

100

100

100

100

100

100



TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

May 12, 1976



Mr. Norman C. Moseley, Director
U.S. Nuclear Regulatory Commission
Region II
230 Peachtree Street, NW., 8th Floor
Atlanta, Georgia 30303

Dear Mr. Moseley:

TENNESSEE VALLEY AUTHORITY - BROWNS FERRY NUCLEAR PLANT UNIT 2 -
DOCKET NO. 50-260 - FACILITY OPERATING LICENSE DPR-52 - ABNORMAL
OCCURRENCE REPORT BFAO-50-260/763W

The enclosed report is to provide details concerning five reed relay failures which were discovered during RMCS retesting and is submitted in accordance with Appendix E to Regulatory Guide 1.16, Revision 4, August 1975. This event occurred on Browns Ferry Nuclear Plant unit 2.

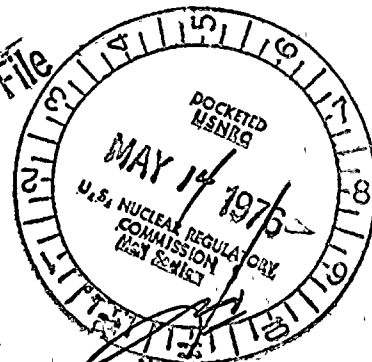
Very truly yours,

TENNESSEE VALLEY AUTHORITY

H. S. Fox

Director of Power Production

Regulatory Docket File



Enclosure (3)

CC (Enclosure):

Director (3)

Office of Management Information and Program Control
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Director (40)

Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Washington, DC 20555

4887



1. 2. 3. 4. 5.

LICENSEE EVENT REPORT

CONTROL BLOCK:

(PLEASE PRINT ALL REQUIRED INFORMATION)

LICENSEE NAME 01 A L B R F 2	LICENSE NUMBER 0 0 - 0 0 0 0 0 - 0 0	LICENSE TYPE 4 1 1 1 1	EVENT TYPE 0 1
CATEGORY 01 CON'T *	REPORT TYPE 0	REPORT SOURCE L	DOCKET NUMBER 0 5 0 - 0 2 6 0
EVENT DATE 0 4 1 2 7 6	REPORT DATE 		

EVENT DESCRIPTION

02 During RMCS retesting, five reed relay failures were discovered, four of which would

03 permit the sequential selection and withdrawal of adjacent control rods when in the

04 REFUEL mode, and one of which would allow two control rods to be withdrawn

05 simultaneously in all but shutdown mode of operation. (BFA0-50-260/763W)

06

SYSTEM CODE	CAUSE CODE	COMPONENT CODE	PRIME COMPONENT SUPPLIER	COMPONENT MANUFACTURER	VIOLATION
07 R B	B	R E L A Y X	N	C 3 4 5	N

CAUSE DESCRIPTION

08 Failed contacts on C. P. Claire reed relays (model MR4MC-1023)

09

10

FACILITY STATUS	% POWER	OTHER STATUS	METHOD OF DISCOVERY	DISCOVERY DESCRIPTION
11 G	0 0 0	NA	C	NA

FORM OF ACTIVITY RELEASED	CONTENT OF RELEASE	AMOUNT OF ACTIVITY	LOCATION OF RELEASE
12 Z	Z	NA	NA

PERSONNEL EXPOSURES

NUMBER	TYPE	DESCRIPTION
13 0 0 0	Z	NA

PERSONNEL INJURIES

NUMBER	DESCRIPTION
14 0 0 0	NA

OFFSITE CONSEQUENCES

15 NA

LOSS OR DAMAGE TO FACILITY

TYPE	DESCRIPTION
16 Z	NA

PUBLICITY

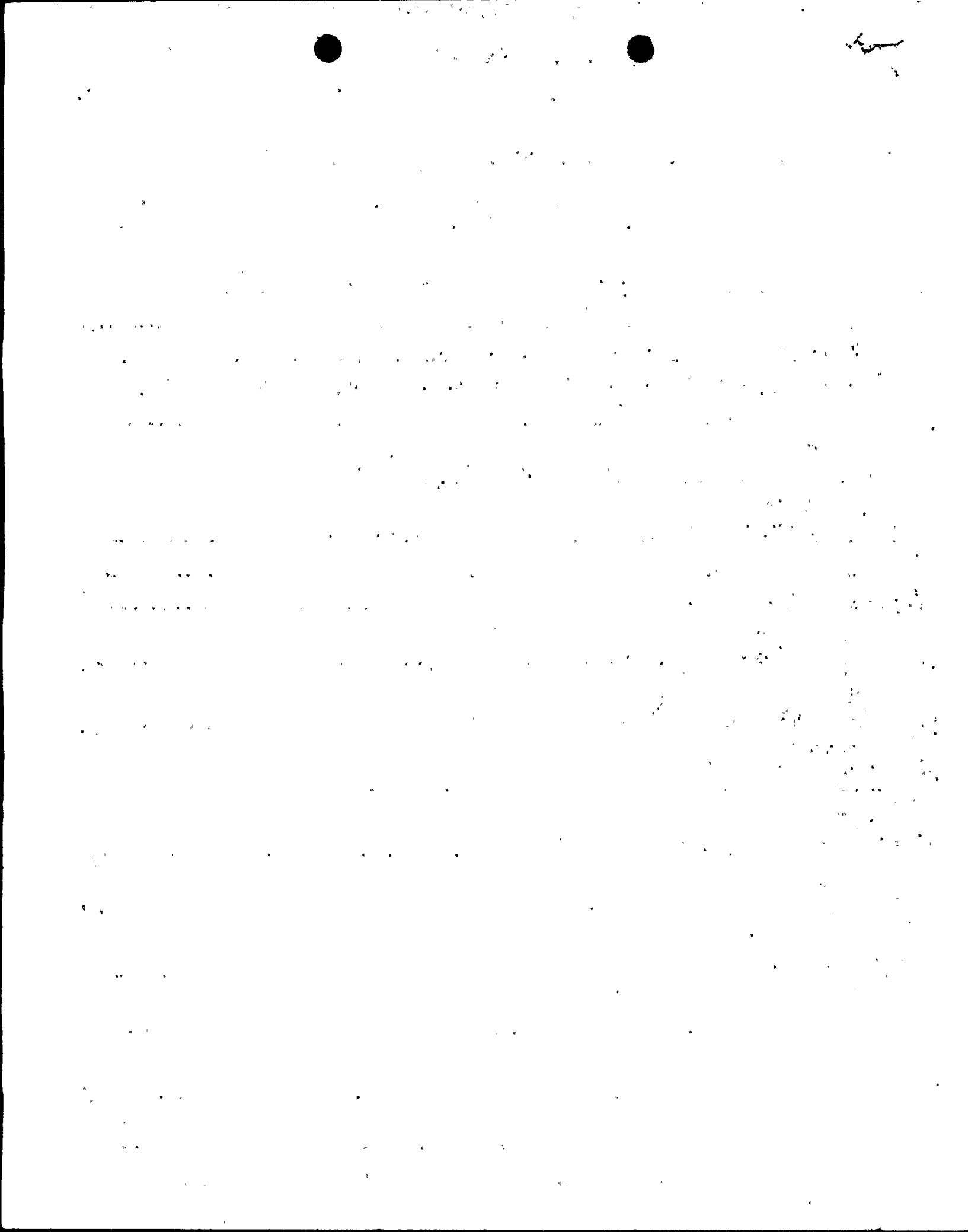
17 NA

ADDITIONAL FACTORS

18 SEE ATTACHMENT

19

NAME: _____ PHONE: _____



ADDITIONAL FACTORS

Simultaneous withdrawal of two control rods require the following conditions coincidentally:

1. Control rod with the failed (contacts closed) reed relay selected first, and
 - a. In the startup and run modes, the second control rod must be selected within the first 0.4 second of the withdrawal cycle of the first control rod, or
 - b. In the refuel mode, there is no time restraint in selecting and withdrawing the second control rod.

Sequential withdrawal of two adjacent control rods requires:

1. Control rod with the failed (contacts open) reed relay selected and withdrawn, it is then possible to select and withdraw a second adjacent control rod, without a time restraint.

To correct this problem, a voltage monitoring circuit will be added to the RSCS and a rod withdrawal prohibit circuit will be added to the RMCS on all units. Defective reed relays were replaced and proper circuit functions verified.

