

Pos 1/n4

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)
DISTRIBUTION FOR INCOMING MATERIAL 50-316

REC: KEPPLER J G
NRC

ORG: SHALLER D V
IN & MI PWR

DOCDATE: 08/02/78
DATE RCVD: 08/07/78

DOCTYPE: LETTER NOTARIZED: NO COPIES RECEIVED
SUBJECT: LTR 1 ENCL 1

FORWARDING LICENSEE EVENT REPT (RO 50-316/78-048) ON 07/06/78 CONCERNING
AFTER REACTOR TRIPS ON MARCH 25, JUNE 14, 19, JULY 6, 14, 1978, ROD POSITION
INDICATION FOR CONTROL ROD H-8 DID NOT INDICATE THAT H-8 WAS FULLY
INSERTED... W/ATT LER 78-029.

PLANT NAME: COOK - UNIT 2

REVIEWER INITIAL: XJM
DISTRIBUTOR INITIAL: M

***** DISTRIBUTION OF THIS MATERIAL IS AS FOLLOWS *****

NOTES:

1. SEND 3 COPIES OF ALL MATERIAL TO I&E

INCIDENT REPORTS
(DISTRIBUTION CODE A002)

FOR ACTION: BR CHIEF ORB#1 BC**W/4 ENCL

INTERNAL:	REG FILE**W/ENCL	NRC PDR**W/ENCL
	I & E**W/3 ENCL	MIPC**W/3 ENCL
	I & C SYSTEMS BR**W/ENCL	EMERGENCY PLAN BR**W/ENCL
	NOVAK/CHECK**W/ENCL	EEB**W/ENCL
	AD FOR ENG**W/ENCL	PLANT SYSTEMS BR**W/ENCL
	HANAUER**W/ENCL	AD FOR PLANT SYSTEMS**W/ENCL
	AD FOR SYS & PROJ**W/ENCL	REACTOR SAFETY BR**W/ENCL
	ENGINEERING BR**W/ENCL	VOLLMER/BUNCH**W/ENCL
	KREGER/J. COLLINS**W/ENCL	POWER SYS BR**W/ENCL
	K SEYFRIT/IE**W/ENCL	

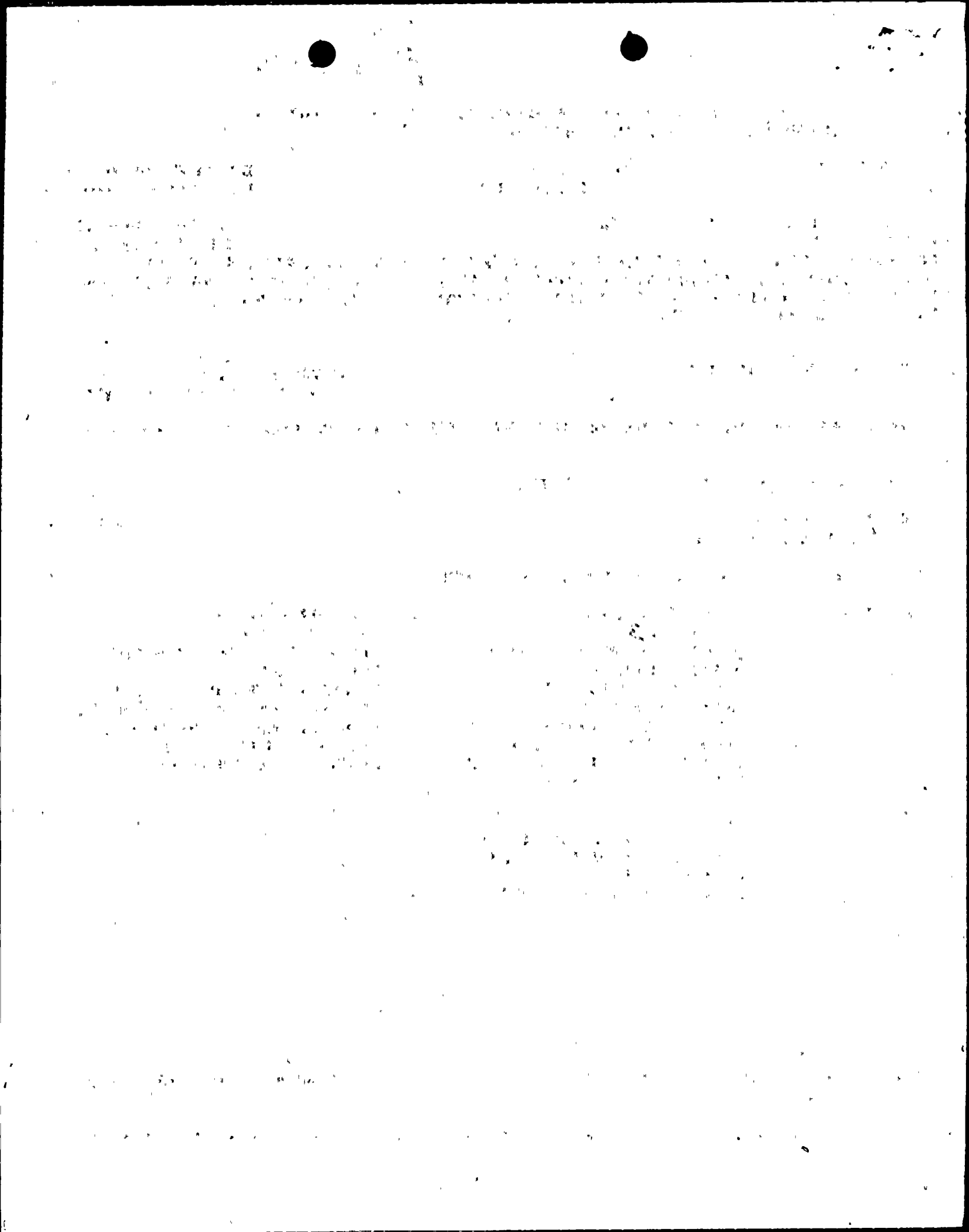
EXTERNAL: LPDR'S
ST. JOSEPH, MI**W/ENCL
TIC, LIZ CARTER**W/ENCL
NSIC**W/ENCL
ACRS CAT B**W/16 ENCL

DISTRIBUTION: LTR 45 ENCL 45
SIZE: 1P+1P+2P

CONTROL NBR: 782230109

Ro 4
GP

***** THE END *****





INDIANA & MICHIGAN POWER COMPANY

DONALD C. COOK NUCLEAR PLANT
P.O. Box 458, Bridgman, Michigan 49106

D. Zanbani
FILES

1978
AUG 10 11 41 AM '78
SERVICES

1978 AUG 10 11 41 AM '78

REGULATORY DISTRIBUTION
SERVICES UNIT

August 2, 1978

Mr. J.G. Keppler, Regional Director
Office of Inspection and Enforcement
United States Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, IL 60137

Operating License DPR-74
Docket No. 50-316

Dear Mr. Keppler:

Pursuant to the requirements of the Appendix A Technical Specifications
the following reports are submitted:

- RO 78-029/03L-1
- RO 78-048/03L-0

Sincerely,

D.V. Shaller

for D.V. Shaller
Plant Manager

/sjk

- cc: J.E. Dolan
- R.W. Jurgensen
- R.F. Kroeger
- R. Kilburn
- R.J. Vollen BPI
- K.R. Baker RO:III
- R.C. Callen MPSC
- P.W. Steketee, Esq.
- R. Walsh, Esq.
- G. Charnoff, Esq.
- G. Olsen
- J.M. Hennigan
- PNSRC
- J.F. Stietzel
- R.S. Keith
- Dir., IE (30 copies)
- Dir., MIPC (3 copies)

AUG 4 1978

AO 4
Aug 5/11
BP



100-100000

100-100000

CONTROL BLOCK: 1

(PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

01 | M | I | D | C | C | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 4 | 1 | 1 | 1 | 1 | 1 | 4 | 5

7 8 9 LICENSEE CODE 14 15 LICENSE NUMBER 25 26 LICENSE TYPE 30 57 CAT 58

CON'T
01 | REPORT SOURCE | L | 6 | 0 | 5 | 0 | 0 | 0 | 3 | 1 | 6 | 7 | 0 | 5 | 1 | 1 | 7 | 8 | 8 | 0 | 8 | 0 | 2 | 7 | 8 | 9

7 8 60 DOCKET NUMBER 68 69 EVENT DATE 74 75 REPORT DATE 80

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES 10

02 | DURING NORMAL OPERATION, ON MAY 11 AND 14, 1978, THE MAIN TURBINE STOP

03 | VALVE "D" CLOSURE LIMIT SWITCH BECAME INOPERABLE. THIS SWITCH PROVIDES A TRIP

04 | SIGNAL LISTED IN T. S. TABLE 3.3-1 ITEM 18.B. IN BOTH OCCASIONS, THE APPLICABLE

05 | ACTION REQUIREMENTS WERE FULFILLED., THEN THE LIMIT SWITCH WAS REPAIRED AND

06 | RETURNED TO OPERATION.

07 |

08 |

09 | SYSTEM CODE | I | A | 11 | CAUSE CODE | B | 12 | CAUSE SUBCODE | A | 13 | COMPONENT CODE | I | N | S | T | R | U | 14 | COMP. SUBCODE | S | 15 | VALVE SUBCODE | Z | 16

7 8 9 10 11 12 13 14 15 16 17 18 19 20

17 | LER/RO REPORT NUMBER | 7 | 8 | EVENT YEAR | 18 | 19 | SHUTDOWN METHOD | Z | 20 | SEQUENTIAL REPORT NO. | 0 | 2 | 9 | HOURS | 0 | 0 | 0 | 0 | ATTACHMENT SUBMITTED | N | 23 | OCCURRENCE CODE | 0 | 3 | REPORT TYPE | L | REVISION NO. | 1 |

21 22 23 24 25 26 27 28 29 30 31 32

ACTION TAKEN | F | 18 | FUTURE ACTION | F | 19 | EFFECT ON PLANT | Z | 20 | SHUTDOWN METHOD | Z | 21 | HOURS | 0 | 0 | 0 | 0 | ATTACHMENT SUBMITTED | N | 23 | NPRD-4 FORM SUB. | Y | 24 | PRIME COMP. SUPPLIER | N | 25 | COMPONENT MANUFACTURER | X | 9 | 9 | 9 | 26

33 34 35 36 37 38 39 40 41 42 43 44 45 46 47

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS 27

10 | THE FAILURE OF THE MAIN TURBINE STOP VALVE LIMIT SWITCHES IS DUE TO SEVERE

11 | VIBRATION OF THE SWITCH MOUNTING BRACKETS AND OPERATING DISCS INDUCED BY

12 | VIBRATION OF THE COMBINED STOP AND CONTROL VALVES. THE MOUNTING BRACKETS

13 | AND THE OPERATING DISCS HAVE BEEN REDESIGNED AND THE MODIFICATION IS PRESENTLY

14 | BEING INSTALLED. DESIGN CHANGE NO. RFC-DC-02-2248.

15 | FACILITY STATUS | E | 28 | % POWER | 0 | 6 | 9 | 29 | OTHER STATUS | NA | METHOD OF DISCOVERY | B | 31 | DISCOVERY DESCRIPTION | OPERATOR OBSERVATION | 32

7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

16 | ACTIVITY RELEASED | Z | 33 | CONTENT OF RELEASE | Z | 34 | AMOUNT OF ACTIVITY | NA | LOCATION OF RELEASE | NA | 36

7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

17 | PERSONNEL EXPOSURES | 0 | 0 | 0 | 37 | TYPE | Z | 38 | DESCRIPTION | NA | 39

7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

18 | PERSONNEL INJURIES | 0 | 0 | 0 | 40 | DESCRIPTION | NA | 41

7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

19 | LOSS OF OR DAMAGE TO FACILITY | Z | 42 | DESCRIPTION | NA | 43

7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

20 | PUBLICITY ISSUED | N | 44 | DESCRIPTION | NA | 45

7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

NAME OF PRS. PREPARED: Jack Rischling PHONE: 616-465-5901

NRC USE ONLY

INSTITUTE
THE GREAT
NATION OF
NATION OF



LICENSEE EVENT REPORT

CONTROL BLOCK: (PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

01 MIDCC2 000000000000000000 411111

CON'T 01 REPORT SOURCE L 05000316 070678 08080278

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10) AFTER REACTOR TRIPS ON MARCH 25, JUNE 14, 19, JULY 6, 14, 1978, ROD POSITION INDICATION FOR CONTROL ROD H-8 DID NOT INDICATE THAT H-8 WAS FULLY INSERTED. THE ACTION REQUIREMENT OF T.S.3.1.1.1 WAS FULFILLED BY EMERGENCY BORATING FOR 5 MINUTES. THE MARCH AND JUNE EVENTS WERE DISCOVERED WHILE GATHERING OPERATING INFORMATION CONCERNING OTHER EVENTS. OCCURRENCES OF A SIMILAR NATURE HAVE BEEN IDENTIFIED ON RO-050-0316/78-40.

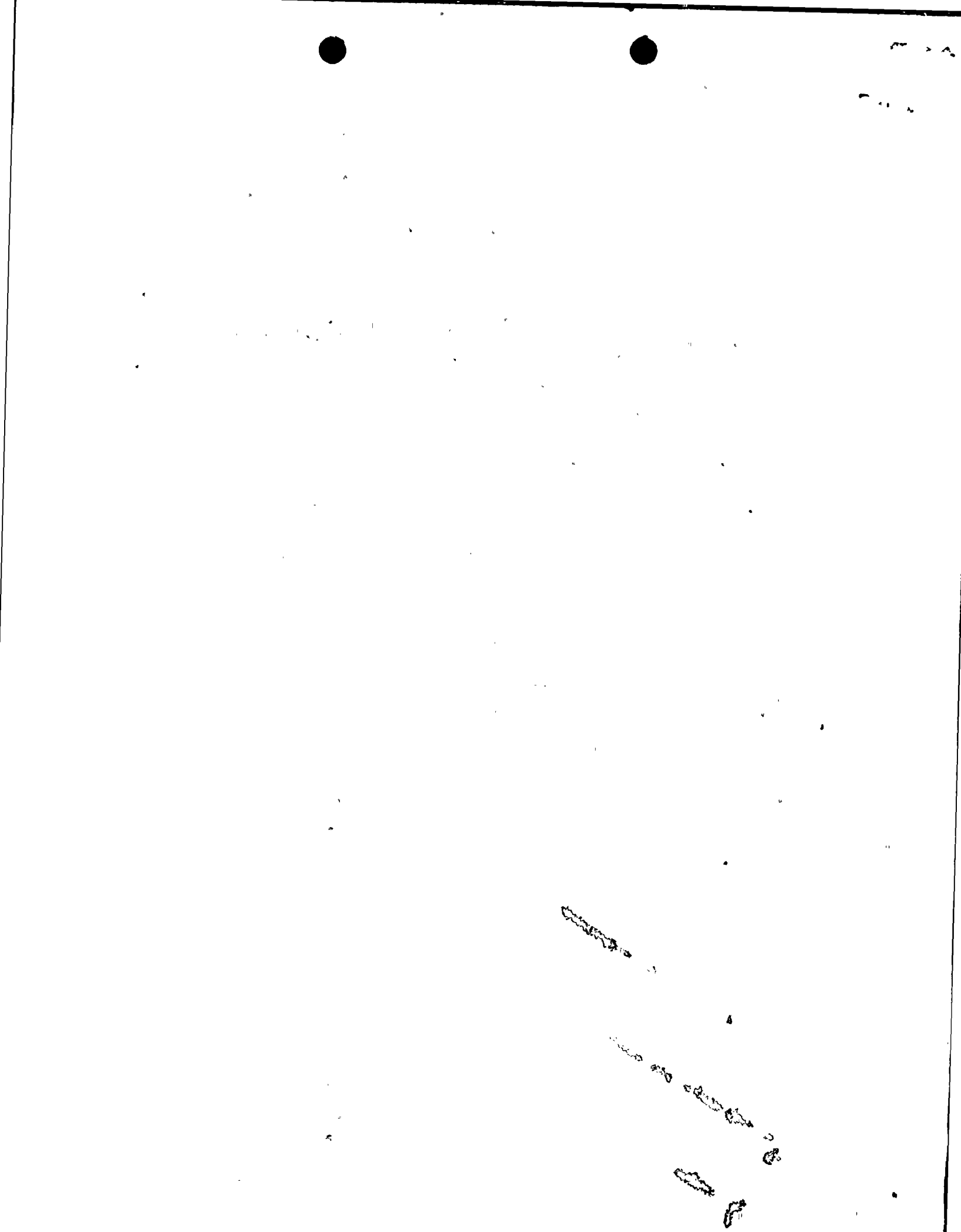
09 SYSTEM CODE I D CAUSE CODE X CAUSE SUBCODE X COMPONENT CODE I N S T R U COMP. SUBCODE I VALVE SUBCODE Z

17 LER/RO REPORT NUMBER 78 EVENT YEAR 78 SEQUENTIAL REPORT NO. 048 OCCURRENCE CODE 03 REPORT TYPE L REVISION NO. 0 ACTION TAKEN X FUTURE ACTION X EFFECT ON PLANT Z SHUTDOWN METHOD Z HOURS 0000 ATTACHMENT SUBMITTED Y NPRD-4 FORM SUB. N PRIME COMP. SUPPLIER N COMPONENT MANUFACTURER W 120

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27) THE ROOT CAUSE OF THESE EVENTS IS UNKNOWN AT THIS TIME. AT THE TIME OF THE REACTOR TRIPS, ROD POSITION INDICATION (RPI) INDICATES THAT ROD H-8 IS STUCK APPROXIMATELY 25-30 STEPS OUT, RPI SECONDARY COIL VOLTAGE MEASUREMENTS HAVE ALSO INDICATED THAT H-8 IS NOT FULLY INSERTED. HOWEVER, H-8 DOES DRIFT IN SLOWLY AFTER 10-15 MINUTES. SEE ATTACHED SUPPLEMENT.

15 FACILITY STATUS D % POWER 000 OTHER STATUS NA METHOD OF DISCOVERY A OPERATOR OBSERVATION DISCOVERY DESCRIPTION 16 ACTIVITY RELEASED OF RELEASE Z Z AMOUNT OF ACTIVITY NA LOCATION OF RELEASE NA 17 PERSONNEL EXPOSURES NUMBER 000 TYPE Z DESCRIPTION NA 18 PERSONNEL INJURIES NUMBER 000 DESCRIPTION NA 19 LOSS OF OR DAMAGE TO FACILITY TYPE Z DESCRIPTION NA 20 PUBLICITY ISSUED N DESCRIPTION NA

NAME OF PREPARER J. L. Rischling PHONE: 616-465-5901



ATTACHMENT TO LER # 78-048/03L-0

SUPPLEMENT TO CAUSE DESCRIPTION

THE PROBLEM APPEARS TO BE PERIODIC IN NATURE AND DOES NOT OCCUR AFTER EVERY REACTOR TRIP, BUT GENERALLY ONLY AFTER REACTOR TRIPS FROM HIGH POWER LEVELS.

INVESTIGATIVE TESTING INCLUDES ROD DROP TESTS AND A CONTROLLED REACTOR TRIP FROM 8% POWER. REACTOR TRIP TEST DATA INCLUDED TAKING VISICORDER TRACES OF H-8 RPI PRIMARY COIL VOLTAGE WITH BRUSH RECORDERS MONITORING THE SIGNAL CONDITIONING MODULE FOR H-8 RPI AND ANOTHER ROD USED AS A COMPARATOR. TEST DATA OBTAINED FROM THE REACTOR TRIP WAS INCONCLUSIVE SINCE CONTROL ROD H-8 DID NOT HANG-UP. THIS IS AN INTERIM REPORT AND A REVISION WILL BE SUPPLIED LATER WHEN A ROOT CAUSE HAS BEEN DETERMINED.