

## LICENSEE EVENT REPORT

CONTROL BLOCK

(PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

0 1 P A T M I 1 2 0 0 - 0 0 0 0 0 - 0 0 3 4 1 1 1 1 4 5  
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 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

CONT

0 1 REPORT SOURCE L 6 0 5 0 0 0 2 8 9 7 0 8 2 7 8 3 8 0 9 2 6 8 3 9  
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 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

0 2 While in cold shutdown, the control rod drive breakers were checked locally  
3 3 prior to closing the disconnect switches to place the CRD system into service. The  
0 4 mechanical indicator for one breaker indicated that the breaker was closed, while  
0 5 the breaker was actually open. Control rods were already inserted and breaker was  
0 6 open so there was no effect on public health and safety. Not reportable per  
0 7 Tech. Specs., but may be of interest because of importance of CRD Breakers.  
0 8  
0 9

0 9 SYSTEM CODE I A 11 CAUSE CODE E 12 CAUSE SUBCODE X 13 COMPONENT CODE C K T B R K 14 COMP SUBCODE A 15 VALVE SUBCODE Z 16  
17 LER/RO REPORT NUMBER 8 3 18 EVENT YEAR 8 3 19 SHUTDOWN METHOD Z 20 HOURS 0 0 0 0 21 ATTACHMENT SUBMITTED Y 22 NPD-4 FORM SUB. Y 23 PRIME COMP. SUPPLIER N 24 COMPONENT MANUFACTURER B 0 1 5 25  
18 ACTION TAKEN B 18 FUTURE ACTION A 19 EFFECT ON PLANT Z 20 SHUTDOWN METHOD Z 21 HOURS 0 0 0 0 22 ATTACHMENT SUBMITTED Y 23 NPD-4 FORM SUB. Y 24 PRIME COMP. SUPPLIER N 25 COMPONENT MANUFACTURER B 0 1 5 26  
19 ACTION TAKEN B 18 FUTURE ACTION A 19 EFFECT ON PLANT Z 20 SHUTDOWN METHOD Z 21 HOURS 0 0 0 0 22 ATTACHMENT SUBMITTED Y 23 NPD-4 FORM SUB. Y 24 PRIME COMP. SUPPLIER N 25 COMPONENT MANUFACTURER B 0 1 5 26

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

1 0 The root cause may be due to wear of the breaker operating mechanism. Mechanism  
1 1 checked and binding part freed. Breaker was cycled to verify that it functioned  
1 2 normally. Discussions are in progress to obtain spare breaker operating mechanism.  
1 3 Mechanism will be inspected again before reactor operation.  
1 4

1 5 FACILITY STATUS X 28 % POWER 0 0 0 29 OTHER STATUS NRC Order 30 METHOD OF DISCOVERY C 31 DISCOVERY DESCRIPTION Inspection 32  
1 6 ACTIVITY RELEASED OF RELEASE Z 33 Z 34 AMOUNT OF ACTIVITY N/A 35 LOCATION OF RELEASE N/A 36  
1 7 PERSONNEL EXPOSURES NUMBER 0 0 0 37 TYPE Z 38 DESCRIPTION N/A 39  
1 8 PERSONNEL INJURIES NUMBER 0 0 0 40 DESCRIPTION N/A 41  
1 9 LOSS OF OR DAMAGE TO FACILITY TYPE Z 42 DESCRIPTION N/A 43  
2 0 PUBLICITY ISSUED N 44 DESCRIPTION 45

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S PDR

NRC USE ONLY

NAME OF PREPARER

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CONTROL ROD DRIVE BREAKER MALFUNCTIONI. Activities at the Time of Occurrence

TMI-1 was in cold shutdown and was preparing for heatup. RC-PlB was operating and Decay Heat removal loop A was in service. The control rods were inserted with CRD breakers open.

II. Circumstances Leading to the Occurrence

On 8/27/83 at approximately 1000 hrs. the control rod drive breakers were checked locally prior to closing the disconnect switches to place the CRD system in service. The mechanical indicator for one breaker indicated that the breaker was closed.

III. Description

AC Trip Breaker Unit 11 indicated closed while the breaker was open. Investigation revealed that the breaker main contacts were open; however, binding in the breaker linkage caused the mechanical position indicator and auxiliary contacts to remain in a closed status. This event is not reportable by Technical Specifications but is reported as an event of potential interest due to the safety significance of CRD Trip Breakers.

IV. Resultant Events

This event did not result in any safety hazard since the breaker was open and the control rods were inserted.

V. Previous Events of a Similar Nature

There have been previous event reports on CRD Breaker Malfunctions but none were related to incorrect indication.

VI. Root Cause

The root cause of the event may be due to wear of the breaker operating mechanism.

VII. Immediate Corrective Action

The breaker was checked and the binding part was freed. The breaker was cycled to verify that it was functioning normally. Similar AC trip breaker Unit 10 was checked to verify that it was operating properly and both AC Trip breaker units were returned to service.

VIII. Long Term Corrective Action

Discussions are in progress with the vendor and the NSS supplier to attempt to obtain spare breaker operating mechanisms.

The breaker mechanism will be inspected, tested and repaired, if necessary, prior to reactor operations.

IX. Component Failure Data

General Electric Circuit Breaker Type AK2A-25-1.



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TELEX 84-2386  
Writer's Direct Dial Number:

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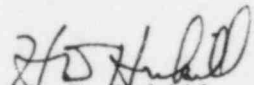
Dr. T. E. Murley  
Region I, Regional Administrator  
U. S. Nuclear Regulatory Commission  
631 Park Avenue  
King of Prussia, PA 19406

Dear Sir:

Three Mile Island Nuclear Station, Unit 1 (TMI-1)  
Operating License No. DPR-50  
Docket No. 50-289  
LER 83-023/99X-0

This letter transmits Licensee Event Report (LER) 83-023/99X-0 which deals with mechanical local indicator failure of Control Rod Drive (CRD) Trip Breaker. This is not reportable per our Technical Specifications, but is being provided due to the safety significance of the CRD Breakers and current regulatory, industry and public interest in recent industry experience with CRD Breakers. The public health and safety were not affected.

Sincerely,

  
R. D. Hukill  
Director, TMI-1

HDH:CJS:vjf

Enclosure

cc: R. Conte  
J. Van Vliet  
Document Management Branch

TE 22  
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