

LICENSEE EVENT REPORT

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

01 PATMI 12 00 - 000000 - 00 03 411111 45
7 8 9 LICENSEE CODE 14 15 LICENSE NUMBER 25 26 LICENSE TYPE 30 57 CAT 58

CON'T

01 REPORT SOURCE L 6 05000289 7 020183 8 030283 9
7 8 DOCKET NUMBER 58 69 EVENT DATE 74 75 REPORT DATE 80

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

02 While in long term cold shutdown, the 1A ES 480V MCC tripped de-energizing radia-
03 tion monitors RM-A4, RM-A6 and RM-A9. While the 1A ES 480V MCC was out of service
04 the above monitors were inoperable which violates the minimum number of channels
05 required by Tech. Spec. Table 3.21-2. This is reportable per T.S. 6.9.2.B(2).
06 Public health and safety was unaffected since purge before and after discovery
07 indicated no activity present.

08 7 8 9

09 SYSTEM CODE CAUSE CODE CAUSE SUBCODE COMPONENT CODE COMP. SUBCODE VALVE SUBCODE
7 8 9 10 11 12 13 14 15 16
BB 11 EE 12 AA 13 CKTB RK 14 AA 15 ZZ 16
17 LER/RO REPORT NUMBER EVENT YEAR SEQUENTIAL REPORT NO. OCCURRENCE CODE REPORT TYPE REVISION NO.
21 22 23 24 25 26 27 28 29 30 31 32
83 002 03 L 0
18 19 20 21 22 23 24 25 26 27 28 29 30 31 32
BH Z Z 0000 Y N LA C150
33 34 35 36 37 38 39 40 41 42 43 44 45 46 47
ACTION TAKEN FUTURE ACTION EFFECT ON PLANT SHUTDOWN METHOD HOURS ATTACHMENT SUBMITTED NPD-4 FORM SUB. PRIME COMP. SUPPLIER COMPONENT MANUFACTURER

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

10 While attempting to reinsert breaker unit into cubicle, Power & Control wires were
11 moved. A wire from the power circuit of unit 1 AR contacted a burr from the
12 adjacent cubicle. Flashing occurred which tripped 1A ES MCC. Conductor insulation
13 on cable CG-2 was repaired within 5 hours.

14 7 8 9

15 FACILITY STATUS % POWER OTHER STATUS (30) METHOD OF DISCOVERY DISCOVERY DESCRIPTION (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
X 28 0000 29 NRC Order B 31 Preventive Maintenance

16 ACTIVITY CONTENT RELEASED OF RELEASE AMOUNT OF ACTIVITY (35) LOCATION OF RELEASE (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
Z 33 Z 34 N/A N/A

17 PERSONNEL EXPOSURES NUMBER TYPE DESCRIPTION (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
000 37 Z 38 N/A

18 PERSONNEL INJURIES NUMBER DESCRIPTION (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
000 40 N/A

19 LOSS OF OR DAMAGE TO FACILITY TYPE DESCRIPTION (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
Z 42 N/A

20 PUBLICITY ISSUED DESCRIPTION (45) 8303140496 830302 PDR ADOCK 05000289 S PDR
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
N 44

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I. Current Activities at the Time of the Occurrence

TMI Unit 1 was in a long term cold shutdown condition.

II. Circumstances Leading to the Occurrence

At 10:20 on 02/01/83 the 1A ES 480V Motor Control Center tripped de-energizing all associated circuits. Preventative Maintenance Procedure E-62 (Testing Molded Case Circuit Breakers) was being performed at the time of the occurrence. Radiation Monitors RM-A4, RM-A6, and RM-A9 were out-of-service due to the loss of power.

III. Description

While attempting to reinsert breaker unit for AH-E-15A in the 1A ES 480V MCC (cubicle 1F), the control and power wiring needed to be moved aside to allow for installation of the unit. A wire from the power circuit of Unit 1AR apparently contacted a burr on a screw for the adjacent cubicle. Flashing occurred tripping unit 1AR and causing a fireball to form which caused a 3 phase short in the 1A ES MCC verticle bus run which finally caused the 1A ES MCC to trip.

While the 1A ES 480V MCC was out-of-service, RM-A4, RM-A6, and RM-A9 were inoperable which is less than the minimum number of channels required by Technical Specification 3.21-2.

IV. Resultant Event

No significant occurrence took place as a result of this event. The 1A ES 480V MCC was repaired and returned to service and channels RM-A4, RM-A6, and RM-A9 were declared operable.

V. Previous Events of a Similar Nature

None

VI. Root Cause

The initiating event for the trip of the motor control center is believed to be a failure of conductor insulation in cable CG-2. The failure caused arcing which spread to the busbars of the MCC causing a 3 phase short of the MCC. The fault was cleared when the feeder breaker to 1A ES MCC tripped.

The cause for the insulation failure is not known. The failure may have resulted from a sharp burr on the head of the screw. Other potential causes considered were damage to conductor insulation when the cable jacket was stripped and insulation cracking due to age or heat.

LER 83-002

(Continued)

VII. Immediate Corrective Action

The insulation of power circuit CG-2 was repaired by use of heat shrink tubing. Unit 1F was cleaned and the vertical bus run of 1A ES MCC cleaned and megged. The 1A ESS MCC was repaired and returned to service approximately 5 hours after occurrence.

VIII. Long Term Corrective Action

During the ongoing program of breaker preventative maintenance, the unit control and power wiring will be visually inspected for insulation damage and greater care exercised in watching for sharp objects which may impede wiring.

IX. Component Failure Data

ITE Motor Control Center Series 9600. Kerite Cable with High Temperature conductor Insulation HTK.