

LICENSEE EVENT REPORT

Three Mile Island 2

CONTROL BLOCK: 1 (PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

0 1 | P | A | T | M | I | 2 | 2 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 3 | 4 | 1 | 1 | 1 | 1 | 4 | 5

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

0 2 | At 0510 hours on December 1, 1981, incore thermocouple F-12 was declared inoperable.
0 3 | Upon inspection of its circuitry, the problem was identified and corrected. The ther-
0 4 | mocouple was returned to service as of 1515 hours on December 1, 1981. This event is
0 5 | considered reportable under Section 6.9.1.8(b) and concerns Section 3.3.3.6 of the
0 6 | TMI-2 Recovery Tech Specs. This event had no effect on the plant, its operation, or
0 7 | the health and safety of the public.

0 8 |

0 9 | SYSTEM CODE: X X 11; CAUSE CODE: A 12; CAUSE SUBCODE: C 13; COMPONENT CODE: I N S T R U 14; COMP. SUBCODE: E 15; VALVE SUBCODE: Z 16; LER/RO REPORT NUMBER: 8 1 17; EVENT YEAR: 8 1 21; SEQUENTIAL REPORT NO.: 0 3 4 24; OCCURRENCE CODE: 0 1 27; REPORT TYPE: X 30; REVISION NO.: 1 32; ACTION TAKEN: B 18; FUTURE ACTION: G 19; EFFECT ON PLANT: Z 20; SHUTDOWN METHOD: Z 21; HOURS: 0 0 0 0 22; ATTACHMENT SUBMITTED: Y 23; NRPD-4 FORM SUB.: N 24; PRIME COMP. SUPPLIER: A 25; COMPONENT MANUFACTURER: B 1 5 5 26

1 0 | During performance of Surveillance Procedure 4302-R4, "Incore Thermocouple Indication
1 1 | Calibration", the polarity of thermocouple F-12 was reversed rendering it inoperable.
1 2 | Upon realization of the inoperability and discerning the problem the situation was cor-
1 3 | rected. Procedures have been revised to prevent further occurrence of this type.

1 4 |

1 5 | FACILITY STATUS: X 28; % POWER: 0 0 0 0 29; OTHER STATUS: Recovery mode 30; METHOD OF DISCOVERY: A 31; DISCOVERY DESCRIPTION: Operator observation 32

1 6 | ACTIVITY CONTENT: Z 33; 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: N/A 45

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PDR ADOCK 05000320
S PDR

JUN 15 1983



**GPU Nuclear Corporation**  
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Writer's Direct Dial Number:

May 19, 1983  
4410-83-L-0082

Office of Inspection and Enforcement  
Attn: Mr. J. M. Allan  
Acting Regional Administrator  
Region I  
US Nuclear Regulatory Commission  
631 Park Avenue  
King of Prussia, PA 19406

81-034

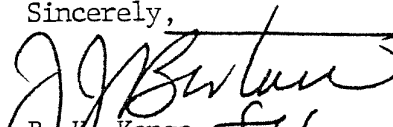
Dear Sir:

Three Mile Island Nuclear Station, Unit 2 (TMI-2)  
Operating License No. DPR-73  
Docket No. 50-320  
Updated Licensee Event Reports

The Licensee Event Reports listed in Attachment 1 have been updated and are enclosed as Attachment 2 to this letter.

If you have any questions, please contact Mr. J. J. Byrne of my staff.

Sincerely,



B. K. Kanga  
Director, TMI-2

BKK/RDW/jep

Attachments

CC: Mr. L. H. Barrett, Deputy Program Director - TMI Program Office  
Dr. B. J. Snyder, Program Director - TMI Program Office

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IE22

LIST OF UPDATED LICENSEE EVENT REPORTS

<u>LER NO.</u>	<u>LER NO.</u>
80-01	81-12
80-05	81-20
80-07	81-22
80-12	81-23
80-49	81-32
80-54	81-34
80-55	81-35
80-56	81-36
80-57	81-38
81-04 *	82-34
81-08	
81-10	

\* Event date on original Licensee Event Report was incorrect. This revision corrects the event date.

LICENSEE EVENT REPORT  
NARRATIVE REPORT  
TMI-II  
LER 81-034/01X-1  
EVENT DATE - December 1, 1981

I. EXPLANATION OF OCCURRENCE

At 0510 hours on December 1, 1981, Incore Thermocouple F-12 was declared inoperable. Upon inspection of the F-12 Incore Thermocouple circuit, I & C Maintenance technicians identified the problem, corrected it, and returned Incore Thermocouple F-12 to operable status as of 1515 hours on December 1, 1981.

This event is considered reportable under Section 6.9.1.8(b) as a violation of Section 3.3.3.6 (Table 3.3-10) of the TMI-2 Recovery Technical Specifications.

II. CAUSE OF THE OCCURRENCE

The failure of Incore Thermocouple F-12 was attributed to personnel error which occurred during the performance of Surveillance Procedure 4302-R4, "Incore Thermocouple Indication Calibration", on November 30, 1981. While completing the calibration for Incore Thermocouple F-12, the I&C Maintenance technicians inadvertently reconnected the thermocouple leads in reversed polarity. This was responsible for the inoperable status of the thermocouple. This condition existed undetected from sometime between 1400 hours on November 30, 1981 to 0510 hours on December 1, 1981 when during normal hourly incore thermocouple readings the Control Room Operator (CRO's) identified the inoperable incore thermocouple (F-12).

The CRO's monitor thermocouple average temperature and the number of incore thermocouples used to generate the average on an hourly basis. The purpose of this printout is two fold; to verify temperatures within the core are as expected and to check for possible incore thermocouple problems. During the time this event occurred, the RCS was experiencing 'mini-burps' within the core due to changes in the heat sink (created by the removal of water from the Reactor Building sump for processing). This resulted in a cycling of the number of thermocouples being used in the computer based temperature averaging. The average incore thermocouple temperature is calculated by the computer using all points within the statistical deviation of two sigma of the central node. This, coupled with the removal and replacement of the thermocouples being calibrated during the multi-week performance of SP 4302-R4, essentially masked the inoperability of thermocouple F-12 for many hours.

III. CIRCUMSTANCES SURROUNDING THE OCCURRENCE

At the time of the occurrence, the Unit 2 facility was in a long-term cold shutdown state. The reactor decay heat was being removed via loss to ambient. Throughout the event there was no effect on the Reactor Coolant System or the core.

IV. CORRECTIVE ACTIONS TAKEN OR TO BE TAKEN

IMMEDIATE

Upon identification of the inoperable thermocouple, it's circuitry was inspected, the problem identified and corrected.

LONG TERM

1. SP 4302-R4 (Rev. 1 DTD 1/15/82) was modified to require post calibration recording of the incore thermocouple output to assure that instrumentation behavior is acceptable.
2. SP 4302-R4 was revised (Rev. 1 DTD 1/15/82) to require the I & C Maintenance Technician to notify the CRO's upon removal from and return to service of each thermocouple. Additionally, Section 3.2.3.6 of AP 1029 (shift relief and log entries) requires CRO's to log equipment out of service and returned to service.
3. SP 4301-S1 was revised (Rev. 14 DTD 6/2/82) to include logging of those thermocouples removed from the averaging circuit by the computer.