Erratic behavior of three incore thermocouples OCT 13 1983 B&W

NRC FORM 366 (7-77)

U. S. NUCLEAR REGULATORY COMMISSION
Attachment 1
4410-83-L-0200

219

LICENSEE EVENT REPORT

CONTROL BLOCK: 1 8 5 4 4 5 (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)
7 8 9 LICENSEE CODE 14 15 LICENSE NUMBER 25 26 LICENSE TYPE 30 57 CAT 58

CON'T
0 1 | REPORT SOURCE L (6) | 0 5 0 0 0 3 2 0 (7) | 0 8 0 1 8 3 (8) | 0 8 3 1 8 3 (9)
7 8 60 61 DOCKET NUMBER 68 69 EVENT DATE 74 75 REPORT DATE 80

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

0 2 | Incore Thermocouples F-8, M-7, and K-11 began to exhibit erratic behavior; therefore
0 3 | in accordance with Technical Specifications 3.3.3.6, Table 3.3-10, Item 10, this
0 4 | report is submitted. LER's 80-13, 80-41, 80-50, 80-53, 81-05, 81-13, 82-15, 83-10,
0 5 | and 83-27, concern thermocouple failures also. This event had no adverse effects on
0 6 | the plant, its operation, or the health and safety of the public.
0 7 |
0 8 |
7 8 9 80

0 9 | SYSTEM CODE X X (11) | CAUSE CODE E (12) | CAUSE SUBCODE X (13) | COMPONENT CODE I N S T R U (14) | COMP. SUBCODE E (15) | VALVE SUBCODE Z (16)
7 8 9 10 11 12 13 18 19 20

(17) LER/RO REPORT NUMBER: EVENT YEAR 8 3 (21 22) | — (23) | SEQUENTIAL REPORT NO. 0 3 2 (24 26) | / (27) | OCCURRENCE CODE 0 1 (28 29) | REPORT TYPE L (30) | — (31) | REVISION NO. 0 (32)

ACTION TAKEN Z (18) | FUTURE ACTION Z (19) | EFFECT ON PLANT Z (20) | SHUTDOWN METHOD Z (21) | HOURS (22) 0 0 0 0 | ATTACHMENT SUBMITTED Y (23) | NPRD-4 FORM SUB. N (24) | PRIME COMP. SUPPLIER N (25) | COMPONENT MANUFACTURER B 1 5 5 (26)
33 34 35 36 37 40 41 42 43 44 47

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

1 0 | The reason for the failures of the thermocouples is not known and may not be possible
1 1 | to determine given the condition of the Unit 2 core relative to incore instrumen-
1 2 | tation. No further action is considered applicable.
1 3 |
1 4 |
7 8 9 80

1 5 | FACILITY STATUS X (28) | % POWER 0 0 0 (29) | OTHER STATUS (30) Recovery Mode | METHOD OF DISCOVERY A (31) | DISCOVERY DESCRIPTION (32) Operator observation
7 8 9 10 12 13 44 45 46 80

1 6 | ACTIVITY RELEASED Z (33) | CONTENT OF RELEASE Z (34) | AMOUNT OF ACTIVITY (35) N/A | LOCATION OF RELEASE (36) N/A
7 8 9 10 11 44 45 80

1 7 | PERSONNEL EXPOSURES NUMBER 0 0 0 (37) | TYPE Z (38) | DESCRIPTION (39) N/A
7 8 9 11 12 13 80

1 8 | PERSONNEL INJURIES NUMBER 0 0 0 (40) | DESCRIPTION (41) N/A
7 8 9 11 12 80

1 9 | LOSS OF OR DAMAGE TO FACILITY TYPE Z (42) | DESCRIPTION (43) N/A
7 8 9 10 80

8309190251 830831
PDR ADOCK 05000320
S PDR

2 0 | PUBLICITY ISSUED N (44) | DESCRIPTION (45) N/A
7 8 9 10 68 69 80

IE22

NRC USE ONLY

NAME OF PREPARER _____ PHONE (717) 948-8461

LER 83-032/01L-0
EVENT DATE - August 1 & 4, 1983

I. EXPLANATION OF THE OCCURRENCE

Incore Thermocouple F-8, M-7, and K-11 began to exhibit erratic behavior; therefore, in accordance with Technical Specifications 3.3.3.6, Table 3.3-10, Item 10, this report is being submitted.

To date, ten (10) LER's, including this one, concern thermocouple failures. The others are LER 80-13, 80-41, 80-50, 80-53, 81-05, 81-13, 82-15, 83-10, and 83-27.

There are now seventeen (17) of the fifty-two (52) Incore Thermocouples reported as being out-of-service (D-14, E-11, F-8, G-5, H-9, H-13, K-11, K-12, L-6, L-11, L-13, M-7, M-9, N-8, N-9, O-6, and O-12). However, as of 1000 hours on August 29, 1983, six (6) of these thermocouples (including D-14, M-9, N-9, and also the three reported as inoperable in this LER, F-8, K-11, and M-7) presently appear to be functioning properly and are being used to help monitor incore condition as long as they are functioning correctly.

II. CAUSES OF THE OCCURRENCE

The precise reason for the failure/erratic behavior of Incore Thermocouples F-8, K-11, and M-7 is not known and may not be possible to determine given the condition of the Unit 2 core relative to incore instrumentation.

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

The Incore Thermocouples were checked to ensure that the problem is not in any component that is accessible for repairs. No further action is considered applicable.

V. COMPONENT FAILURE DATA

The failed thermocouple was a Type K (Chromium/Alumel) thermocouple, Model No. DAZA-76-7R-1B-1T-1C, supplied by Babcock and Wilcox, manufactured by Bel Fab, Inc.

OCT 13 1983

B & W

GPU Nuclear

GPU Nuclear Corporation
Post Office Box 480
Route 441 South
Middletown, Pennsylvania 17057-0191
717 944-7621
TELEX 84-2386
Writer's Direct Dial Number:

August 31, 1983
4410-83-L-0200

Office of Inpsection and Enforcement
Attn: Dr. Thomas E. Murley
Regional Administrator
US Nuclear Regulatory Commission
Region I
631 Park Avenue
King of Prussia, PA 19406

Dear Sir:

Three Mile Island Nuclear Station, Unit 2 (TMI-2)
Operating License No. DPR-73
Docket No. 50-320
Licensee Event Report 83-032/01L-0

Attached please find Licensee Event Report 83-032/01L-0 concerning the failure of Incore Thermocouples F-8 and M-7 on August 1, 1983, and Incore Thermocouple K-11 on August 4, 1983.

This event is a violation of Section 3.3.3.6, Table 3.3-10, Item 10, and is reportable under Section 6.9.1.8 of the Interim Recovery Technical Specifications.

Sincerely,

B. K. Kanga

B. K. Kanga
Director, TMI-2

BKK/SDC/jep

Attachments

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