

update on flooding of auxiliary building during rain FEB 7 1984

NRC FORM 366 UPDATE REPORT - PREVIOUS REPORT DATE 7/26/82 (7-77)

U. S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT

Attachment 1

268 B&W

CONTROL BLOCK: 11881144 (1) (PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

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

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

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

02 | At 1500 hours on June 3, 1982 it was determined that the recent overflow of the Auxil-
03 | iary Building Sump occurred due to an influx of rainwater from the Borated Water Stor-
04 | age Tank Recirculation Pump enclosure (BWST Enclosure) sump. This event is considered
05 | reportable per Section 6.9.1.8(i) due to deficient administrative controls associated
06 | with the BWST enclosure and TMI-2 Flood Protection. This event had no effect on the
07 | health and safety of the public.

09 | SYSTEM CODE | Z | Z | 11 | CAUSE CODE | B | 12 | CAUSE SUBCODE | C | 13 | COMPONENT CODE | Z | Z | Z | Z | Z | Z | 14 | COMP. SUBCODE | Z | 15 | VALVE SUBCODE | Z | 16

17 | LER/RO REPORT NUMBER | 8 | 2 | 21 | EVENT YEAR | 8 | 2 | 22 | SEQUENTIAL REPORT NO. | 0 | 2 | 0 | 24 | OCCURRENCE CODE | 0 | 1 | 28 | REPORT TYPE | X | 30 | REVISION NO. | 1 | 32 | ACTION TAKEN | X | 18 | FUTURE ACTION | F | 19 | EFFECT ON PLANT | Z | 20 | SHUTDOWN METHOD | Z | 21 | HOURS | 0 | 0 | 0 | 22 | ATTACHMENT SUBMITTED | Y | 23 | NPRD 4 FORM SUB. | N | 24 | PRIME COMP. SUPPLIER | Z | 25 | COMPONENT MANUFACTURER | Z | 9 | 9 | 9 | 26

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

10 | This event was caused by inadequate flood protection of the BWST enclosure. An ex-
11 | pandable plug has been installed in the drain from BWST enclosure to prevent overflow-
12 | ing the Auxiliary Building Sump in the event of a similar rainfall. The BWST enclo-
13 | sure and station procedures have been modified to provide flood protection.

15 | FACILITY STATUS | X | 28 | % POWER | 0 | 0 | 0 | 29 | OTHER STATUS | Recovery Mode | 30 | METHOD OF DISCOVERY | A | 31 | DISCOVERY DESCRIPTION | PORC Investigation | 32

16 | ACTIVITY CONTENT | Z | 33 | RELEASED OF RELEASE | Z | 34 | AMOUNT OF ACTIVITY | N/A | 35 | LOCATION OF RELEASE | N/A | 36

17 | PERSONNEL EXPOSURES NUMBER | 0 | 0 | 0 | 37 | TYPE | Z | 38 | DESCRIPTION | N/A | 39

18 | PERSONNEL INJURIES NUMBER | 0 | 0 | 0 | 40 | DESCRIPTION | N/A | 41

19 | LOSS OF OR DAMAGE TO FACILITY TYPE | Z | 42 | DESCRIPTION | N/A | 43

20 | PUBLICITY ISSUED | N | 44 | DESCRIPTION | N/A | 45

NAME OF PREPARER: Steven D. Chaplin PHONE: (717) 948-8461

3-82-84

Rev. 0 on file

8401030129 831209 PDR ADOCK 05000320 PDR S

IE 22

GPO 917-226

LICENSEE EVENT REPORT
NARRATIVE REPORT
TMI-II
LER 82-020/01X-1
EVENT DATE - June 3, 1982

I. EXPLANATION OF THE OCCURRENCE

From 1600 on June 1, 1982, to 0200 on June 2, 1982, approximately 3.5 inches of rain fell at Three Mile Island (Attachment 3). As a result of this rainfall, and the resulting surface runoff, the accumulated water overflowed the curb surrounding the Borated Water Storage Tank Recirculation Pump Enclosure (BWST Enclosure). This water drained from the BWST Enclosure via a two-inch drain line to the Auxiliary Building Sump (Sump). As a result of the increased influx to the sump from the BWST Enclosure, the sump overflowed. Although this event was of minor consequence, it pointed out a deficiency in the TMI-2 flood protection plan as the rainfall causing the event was much less than the probable maximum precipitation for TMI-2 and the elevation of the concrete base pad of the enclosure is lower than that of the probable maximum flood.

This event is considered reportable per Section 6.9.1.8(i) due to deficient administrative controls associated with the BWST Enclosure and its affect on TMI-2 flood protection. This event had no effect on the health and safety of the public.

II. CAUSE OF THE OCCURRENCE

The ECM utilized for fabrication of the BWST Enclosure was accompanied by a safety evaluation which considered the possibility of general area flooding in the vicinity of the structure. This safety evaluation stated that the concrete base pad would be a minimum of six inches above grade elevation and the BWST Enclosure would be sealed to prevent inleakage.

Additionally, the safety evaluation identified that sufficient time was available to "water-proof the line" in the event of severe natural phenomena. To satisfy this criteria, the Flood Emergency Procedure was to have been updated, as indicated by the Technical Functions Division Task Record, to plug the drain line from the BWST Enclosure in the event of flooding.

However, the concrete base pad is less than six inches above actual grade elevation and the Flood Emergency Procedure has not been updated. If these items had been completed this event would not have occurred and TMI-2 would not have been vulnerable to flood water inleakage.

Thus, this event was caused by a breakdown in the administrative controls associated with the BWST Enclosure project, in that the existing BWST Enclosure did not meet the criteria established for it in the Safety Evaluation and the update to the Flood Emergency Procedure discussed above was not followed up to ensure that it was completed.

An additional circumstance in the issue of the adequacy of the BWST Enclosure to prevent flooding of the Auxiliary Building is that during its turnover inspection performed in March 1982 an open item was identified which expressed a concern with the "rain-tightness" of the BWST Enclosure. However, this item had not been resolved prior to the rainstorm of June 1 and 2, 1982.

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

An expandable plug was installed in the BWST Enclosure sump drain to control leakage into the Auxiliary Building sump. This area is monitored once per shift to determine if any water accumulation exists and, if so, to drain any existing water to the Auxiliary Building sump in a controlled manner.

LONG TERM

The BWST Enclosure was sealed to provide protection from the inleakage of rainwater or local ground flooding. Additionally, a catch basin has been installed, and the area surrounding the BWST was regraded to allow runoff to the catch basin.

The plug that was installed in the sump drain has been removed. In case of future flooding, a rubber plug is located near the sump drain for installation per the Flood Emergency Procedure.

Flood Emergency Procedure 2202-3.2 was updated (Revision 6 dated October 8, 1982) to incorporate plugging of the BWST Enclosure sump drain in the event of high river water flooding at TMI-2.

The "Auxiliary Building sump level high" Alarm Response Procedure 2204-301A.C2 was revised on March 22, 1983, to check the BWST enclosure drains as a possible source of high water level.

To correct the administrative problems, the Technical Functions Division Task Record System was reviewed; those items which affect operation of TMI-2 were identified and transferred to the TMI-2 Site Operations Action Item Tracking System.

Review of open items existing from turnover inspections of other engineering changes identified four items considered to be significant. These items were transferred to the Site Operations Action Item Tracking System and subsequently have been completed.

A review of over 1,000 engineering changes issued during the recovery period and prior to implementation of the existing turnover inspection process determined that 188 of these engineering changes are still in use and are considered Important to Safety (ITS). As a result of GPUNC's priority reassessment, these early engineering changes will not be subject to retrofit into the current turnover process. However, a review of these early engineering changes against current approved procedures indicated that in seven (7) cases, added valves were not incorporated into procedure valve line-up checksheets. Action items have been issued to correct these omissions.

No further corrective action is anticipated.

ATTACHMENT 3

Precipitation Record

<u>Date</u>	<u>Time</u>	<u>Amount</u>
June 1, 1982	1600 - 1700	0.43"
	1700 - 1800	2.61"
	1800 - 1900	0.22"
	1900 - 2000	0.14"
	2000 - 2100	0.02"
	2100 - 2200	0.02"
	2200 - 2300	-----
	2300 - 2400	0.03"
June 2, 1982	0000 - 0100	0.07"
	0100 - 0200	0.01"



GPU Nuclear Corporation

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Writer's Direct Dial Number:

December 9, 1983
4410-83-L-0282

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

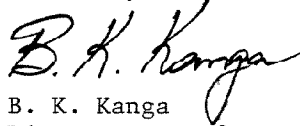
Dear Sir:

Three Mile Island Nuclear Station, Unit 2 (TMI-2)
Operating License No. DPR-73
Docket No. 50-320
Licensee Event Report 82-020/01X-1

Attached please find updated Licensee Event Report 82-020/01X-1 concerning the Unit 2 Borated Water Storage Tank recirculation pump enclosure sump on June 3, 1982.

This event is considered reportable under Section 6.9.1.8(i) of the Interim Recovery Technical Specifications.

Sincerely,


B. K. Kanga
Director, TMI-2

BKK/TLG/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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