NRC FORM 366
(7-77)

U. S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT

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

01 LICENSEE CODE (2)	P A T M I 1
LICENSE NUMBER (3)	0 0 - 0 0 0 0 0 - 0 0
LICENSE TYPE (4)	4 1 1 1 1
CAT (5)	

CON'T 01 REPORT SOURCE (6)	1
DOCKET NUMBER (7)	0 5 0 0 0 2 8 9
EVENT DATE (8)	1 1 1 4 8 3
REPORT DATE (9)	1 2 0 9 8 3

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

02 During AE walkdown it was noted that, contrary to safety grade design criteria for
03 electrical separation, EFW Auto Initiation redundant circuits were routed in the
04 same cable bundle. This is considered reportable per T.S. 6.9.2.A.9. Public health
05 and safety were unaffected.
06
07
08

09	
SYSTEM CODE (11)	C H
CAUSE CODE (12)	B
CAUSE SUBCODE (13)	A
COMPONENT CODE (14)	Z Z Z Z Z Z
COMP. SUBCODE (15)	X
VALVE SUBCODE (16)	Z

(17) LER/RO REPORT NUMBER

EVENT YEAR		SEQUENTIAL REPORT NO.		OCCURRENCE CODE	REPORT TYPE		REVISION NO.
8 3	—	0 4 4	/	0 1	T	—	1

ACTION TAKEN (18)	FUTURE ACTION (19)	EFFECT ON PLANT (20)	SHUTDOWN METHOD (21)	HOURS (22)	ATTACHMENT SUBMITTED (23)	NPRD-4 FORM SUB. (24)	PRIME COMP. SUPPLIER (25)	COMPONENT MANUFACTURER (26)
F	F	Z	Z	0 0 0 0	Y	N	Z	Z 9 9 9

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

10 This modification was originally designed to meet the initial short term requirement,
11 NUREG 0578 2.1.7a, for control grade circuitry. When the design criteria were up-
12 graded to safety grade this circuitry was not included in the principal upgrade
13 design package. The redundant cables have been separated. Completed documentation
14 for nuclear safety related classification of the circuits will be reviewed by Quality Assurance prior to Restart.

15	
FACILITY STATUS (28)	X
% POWER (29)	0 0 0
OTHER STATUS (30)	NRC Order
METHOD OF DISCOVERY (31)	C
DISCOVERY DESCRIPTION (32)	Field Questionnaire

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

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

8401030258 831209
PDR ADOCK 05000289
S PDR

18 PERSONNEL INJURIES	
NUMBER (40)	0 0 0
DESCRIPTION (41)	N/A

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

IE22
| |

20 PUBLICITY	
ISSUED (44)	N
DESCRIPTION (45)	N/A
NRC USE ONLY	

NAME OF PREPARER R. A. Szczech PHONE: 717-948-8833

GPO 917-926

I. CURRENT ACTIVITIES AT THE TIME OF THE OCCURRENCE

Three Mile Island Unit 1 was in cold shutdown.

II. CIRCUMSTANCES LEADING TO THF OCCURRENCE

As described in our letter of June 28, 1979, GPUN agreed to provide auto initiation of the motor driven EFW pumps upon loss of both feedwater pumps or loss of 4 RCPs. As first proposed, the system was to be control grade prior to restart, and it was to be upgraded after restart to safety grade. In November 1980, the company committed to establish a safety-grade system (except as noted in NUREG 0680) prior to restart. The principal design modifications necessary for upgrade of the auto initiation system from control grade to safety grade are found in design package SECM 076. This design package, as prepared by the Architect Engineer, did not include specifications for ten existing control grade circuits to which the upgraded system would be connected.

In response to an AE initiative, Installation Specification T1-IS-412012-001 was issued on July 5, 1983 to provide upgraded specifications for these ten circuits (including cables and related conduits). The major specification was for a QA/QC safety-grade review of the ten circuits including a walkdown of the circuits. In response to Field Questionnaire (FQ 8267) the AE was designated to perform the walkdown, and the AE did so on September 21, 1983. The QA/QC review was substantially completed in September-November 1983.

III. DESCRIPTION

It was noted in the walkdown referenced in Section II, and was confirmed by GPUN personnel on November 9, 1983, that 4 feet of cabling in two of the ten circuits were located in the same bundles. This is contrary to safety-grade cable separation criteria. As part of the QA/QC safety grade reviews of the ten circuits, additional documentation was compiled to justify nuclear safety-related designation for the ten circuits.

Since GPUN had previously notified the NRC that the auto initiation system had been upgraded to safety grade, this is considered reportable in accordance with Technical Specification 6.9.2.A.9.

IV. RESULTANT EVENT

No significant occurrence took place as a result of this event.

V. PREVIOUS EVENTS OF A SIMILAR NATURE

None.

VI. ROOT CAUSE

The root cause was a misunderstanding between the Licensee and AE concerning the scope of design package SECM 076. GPUN understood the package included all modifications to complete a safety upgrade of the auto initiation system. The AE understood the package was exclusive of specification for ten existing circuits (EA 6765 & 6766, RU 485-490, RG 282 and 283). The AE understood these ten circuits were to be separately upgraded.

VII. IMMEDIATE CORRECTIVE ACTION

Quality Assurance has completed a safety-grade review of the 10 circuits originally installed as control grade. Appropriate Engineering and Quality Assurance personnel have reviewed the LER. Company procedure EMP-13, which was issued in April 1983, will avoid future communication problems with the vendor by requiring certification by the vendor that the work is performed in accordance with baseline engineering documents. Cable RU 489 has been separated from the existing cable bundle and appropriate electrical separation has been achieved.

VIII. LONG TERM CORRECTIVE ACTION

Completed final documentation for nuclear safety related classification of the 10 circuits will be reviewed by Quality Assurance prior to Restart. Upon completion of this action, the EFW auto initiation system will be safety grade, as committed.

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:

December 9, 1983
5211-83-358

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 83-044/01T-1

The attached information is being submitted as revision (1) to Licensee Event Report 83-044 of November 28, 1983. As a result of detailed review, this new information provides a clearer understanding of the circumstances surrounding this occurrence.

Sincerely,

H. D. Hukill
Director, TMI-1

HDH:RAS:vjf

Enclosure

cc: J. Van Vliet

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