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August 19, 1980
TLL 409

Office of Inspection and Enforcement
Attn: Mr. Boyce H. Grier, Director
Region I
U. S. Nuclear Regulatory Commission
631 Park Avenue
King of Prussia, Pennsylvania 19406

Dear Sir:

Three Mile Island Nuclear Station, Unit 2 (TMI-2)
Operating License No. DPR-73
Docket No. 50-320
Licensee Event Report 80-032/03L-0

Attached please find Licensee Event Report 80-032/03L-0, concerning a coupling leakage of contaminated water during a second dewatering of an EPICOR I liner, on July 19, 1980.

This event is considered reportable under Section 6.9.1.9(d) of the Interim Recovery Technical Specifications.


Sincerely,

/s/ G. K. Hovey

G. K. Hovey
Director, TMI-2

GKH:SDC:dad

Attachments

cc: John T. Collins


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8008250513

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LICENSEE EVENT REPORT

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

01 PATMI 200-000000-000 411111 05
7 8 9 14 15 25 26 30 37 38 39

CON'T

01 REPORT SOURCE L 05000320 07071980 08081880 09
7 8 60 61 68 69 74 75 80

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

02 On July 19, 1980, while re-dewatering an EPICOR I liner, a leak of radioactive
03 liquid was discovered at a coupling between the two lengths of hose used for dewater-
04 ing. ^{About} Approx. 0.001 Ci of radioactive material leaked onto the ground in the EPICOR
05 I shield storage area. Upon discovery, the system was secured, surveys taken, and
06 decontamination initiated. Virtually 100% of the radioactive material was recovered by re-
07 moval of the contaminated soil. There was no measurable increase in radiation levels
08 on/offsite except locally; therefore, there was no impact on health of the public.

09 SYSTEM CODE MA 11 CAUSE CODE X 12 CAUSE SUBCODE Z 13 COMPONENT CODE XXXXX 14 COMP SUBCODE Z 15 VALVE SUBCODE Z 16
17 LER/RG REPORT NUMBER 80 18 ACTION TAKEN X 19 FUTURE ACTION X 20 EFFECT ON PLANT Z 21 SHUTDOWN METHOD Z 22 HOURS 0000
23 SEQUENTIAL REPORT NO 032 24 OCCURRENCE CODE 03 25 REPORT TYPE L 26 REVISION NO 0
27 ATTACHMENT SUBMITTED Y 28 NRRD-4 FORM SUB. N 29 PRIME COMP SUPPLIER X 30 COMPONENT MANUFACTURER L137 31

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

10 The leak was due to the worn mating surfaces of the Quick Release Coupling which no
11 longer formed a tight seal when engaged. Requirements ^{that} for a single length of hose be
12 used, the couplings be inspected before engagement and after, and that the system
13 be walked down periodically during operation have been initiated and are being in-
14 corporated into the appropriate procedure.

15 FACILITY STATUS X 28 POWER 000 29 OTHER STATUS 30 Recovery Mode 31 METHOD OF DISCOVERY A 32 HP Technician Observation 33

16 ACTIVITY RELEASED OF RELEASE L 33 P 34 AMOUNT OF ACTIVITY 0.001 Ci total 35 LOCATION OF RELEASE 36 hose to ground - external to structures 37

17 PERSONNEL EXPOSURES NUMBER 000 37 TYPE Z 38 DESCRIPTION 39 N/A 40

18 PERSONNEL INJURIES NUMBER 000 40 DESCRIPTION 41 N/A 42

19 LOSS OF OR DAMAGE TO FACILITY TYPE Z 42 DESCRIPTION 43 N/A 44

20 PUBLICITY ISSUED N 44 DESCRIPTION 45 N/A 46

LICENSEE EVENT REPORT
NARRATIVE REPORT

TMI-2

LER 80-032/03L-0
EVENT DATE - July 19, 1980

I. EXPLANATION OF OCCURRENCE

On July 19, 1980, at 0615, contractor operators lined up an EPICOR I P-3 liner for re-dewatering using OP1104-29X. The liner, in its handling shield, was in the EPICOR I shield storage area and was lined up using two lengths of hose with Quick Release Couplings. At 0720, the pump was started to dewater the liner. At 0730, while entering the area in preparation to replace the cask cover, a HP technician observed a leak from the coupling between the two hoses used for dewatering. An oblong area, 2 feet by 4 feet, on the ground under the connection was wetted by the leak. The dewatering pump was immediately secured and the line blown dry. Unit 2 HP responded to the leak and obtained dose rates and samples. The contaminated ground was covered with plastic and the area secured until a Radiation Work Permit (RWP) could be generated to decontaminate the area.

The leak occurred over a 1½ hour period. It was not discovered earlier because once the personnel complete their specific task(s) within the shield area, they exit and the area is secured by HP technicians. The leak was approximately 70 feet within the secured area and could not be easily identified from outside the area.

Surveys indicated dose rates on the spill were 480 mrad/hour 8^- and 30 mrad/hour γ . Airborne samples in the immediate area were initially $1.4E^{-9}$ μ Ci/ml and decreased to $3.6E^{-10}$ μ Ci/ml by 1230. Soil samples for isotopic analysis were taken of the spill before, during, and after decontamination. Based on the soil and air sampling, it was determined that approximately 0.001 Ci of radioactive material was released to the ground.

No measurable change in radioactivity levels was observed either on or offsite except in the immediate vicinity of the leakage. Therefore, there existed no hazard to the health and safety of the public.

II. CAUSE OF THE OCCURRENCE

The leak was due to the quick release coupling's worm mating surfaces which no longer formed a tight seal when engaged.

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 natural circulation to the "A" steam generator which is operating in a 'steaming' mode. Throughout the event, there was no Loss of Natural Circulation heat removal in the RCS System.

IV. CORRECTIVE ACTIONS TAKEN OR TO BE TAKEN

IMMEDIATE

Upon discovery of the leakage, the source was secured, surveys taken, the spill isolated and covered, and steps taken to initiate decontamination of the area. Approximately 18 cubic feet of soil, to a depth of 8 inches, was removed during the decontamination effort. The entire area was decontaminated to less than 1000 dpm/100 square cm. Virtually 100% of the radioactive material was recovered by removal of the contaminated soil. The two lengths of hose were replaced with a single length and the dewatering completed.

LONG TERM

The RWP for dewatering now requires that a single, continuous length of hose be used for dewatering.

The only connector left in the storage area is the hose to liner connection. The operator must now inspect the coupling before making the connection and then check the connection for leaks after dewatering is started.

The RWP now requires that a walkdown of the entire line-up be done upon start-up and hourly during the processing.

The above requirements are being included in a revision of Operating Procedure 1104-29X.

V. COMPONENT FAILURE DATA

N/A