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Writer's Direct Dial Number

March 11, 1980  
TLL 109

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

Dear Sir:

Three Mile Island Nuclear Station, Unit II (TMI-2)  
Operating License No. DPR-73  
Docket No. 50-320  
Licensee Event Report 80-004/03L-0


Attached please find Licensee Event Report 80-004/03L-0 concerning the  
Makeup and Purification System Leakage on February 11, 1980.

This event is considered reportable under section 6.9.1.9.d of the  
Technical Specifications in force at the time of the event.

Sincerely,

/s/ J. J. Barton for

R. F. Wilson  
Director, TMI-II

RFW:SDC:hah  
Attachments  
cc: J. T. Collins  


*Handwritten:* A002  
3/11

*Handwritten:* 545

LICENSEE EVENT REPORT

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

0 1 | P A T M I 2 | 0 0 - 0 0 0 0 0 - 0 0 | 4 1 1 1 1 | \_\_\_\_\_ | 5  
7 8 9 14 15 25 26 30 57 CAT 58

CON'T  
0 1 | REPORT SOURCE L | 6 | 0 5 0 0 0 3 2 | 0 7 | 0 2 1 1 1 | 8 0 | 8 | 0 3 1 1 8 | 0 | 9  
7 8 60 61 68 69 74 75 80

0 2 | During an operability test of the "A" makeup pump MU-P-1A and the associated dis-  
0 3 | charge pressure surge, a test connection valve at a discharge pressure switch for  
0 4 | the "B" makeup pump MU-P-1B separated from the line. This generated an <sup>a</sup>approx. 9 gpm  
0 5 | leak, <sup>about</sup> approx. 550 gal. <sup>spilled</sup> total of RCS liquid into the Aux. Bldg., <sup>Buildings</sup> resulting in airborne  
0 6 | contamination and a declaration of a local emergency within the Aux. Bldg. This event  
0 7 | ~~is considered reportable under Technical Specification 6.9.1.9.d and had no adverse~~  
0 8 | ~~or disruptive effect on Recovery Mode natural convection cooling of the core.~~ 7

0 9 | SYSTEM CODE C J | 11 | CAUSE CODE X | 12 | CAUSE SUBCODE Z | 13 | COMPONENT CODE Z Z Z Z Z Z | 14 | COMP. SUBCODE Z | 15 | VALVE SUBCODE Z | 16 |  
7 8 9 10 11 12 13 18 19 20

17 | LER/RO REPORT NUMBER | EVENT YEAR 8 | 21 22 | SEQUENTIAL REPORT NO. 0 0 4 | 24 26 27 | OCCURRENCE CODE 0 3 | 28 29 | REPORT TYPE L | 30 | REVISION NO. 0 | 32  
ACTION TAKEN X | 18 | FUTURE ACTION X | 19 | EFFECT ON PLANT Z | 20 | SHUTDOWN METHOD Z | 21 | HOURS 0 0 0 0 | 22 23 24 26 27 | ATTACHMENT SUBMITTED Y | 23 | NPRO-4 FORM SUB. N | 24 | PRIME COMP. SUPPLIER Z | 25 | COMPONENT MANUFACTURER Z 9 9 9 | 26  
33 34 35 36 37 40 41 42 43 44 47

1 0 | CAUSE DESCRIPTION AND CORRECTIVE ACTIONS 27  
1 0 | The failure may have been caused by an inadequately tightened compression fitting  
1 1 | but this cannot be confirmed due to ALARA considerations. After determining the  
1 2 | exact location of the leak, the "B" makeup pump was secured and the standby pressure  
1 3 | and volume control system was placed into service. The pressure switch was  
1 4 | isolated and the fitting was capped. 7

1 5 | FACILITY STATUS G | 28 | % POWER 0 0 0 | 29 | OTHER STATUS N/A | 30 | METHOD OF DISCOVERY B | 31 | DISCOVERY DESCRIPTION Operator Observation | 32  
7 8 9 10 11 12 13 44 45 46 80

1 6 | ACTIVITY CONTENT. G | 33 | N | 34 | AMOUNT OF ACTIVITY 0.30 Ci Total | 35 | LOCATION OF RELEASE Through the Plant Vent | 36  
7 8 9 10 11 44 45 80

1 7 | PERSONNEL EXPOSURES NUMBER 0 0 0 | 37 | TYPE Z | 38 | DESCRIPTION N/A | 39  
7 8 9 10 11 12 13 40

1 H | PERSONNEL INJURIES NUMBER 0 0 0 | 40 | DESCRIPTION N/A | 41  
7 8 9 10 11 12 40

1 9 | LOSS OF OR DAMAGE TO FACILITY TYPE Z | 42 | DESCRIPTION N/A | 43  
7 8 9 10 11 12 40

2 0 | PUBLICITY ISSUED DESCRIPTION Y | 44 | Press Release 02-11-80 | 45  
7 8 9 10 11 12 40

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

8003180554

LICENSEE EVENT REPORT  
NARRATIVE REPORT

LER 80-004/031-0  
EVENT DATE-FEBRUARY 11, 1980

I. EXPLANATION OF OCCURRENCE

During an operability test of the "A" makeup pump MU-P-1A and the associated discharge pressure surge, a test connection valve at a discharge pressure switch for the "B" makeup pump MU-P-1B separated from the line. This resulted in an approximate 9 gpm leak of Reactor Coolant System liquid into the pump cubicle. A total of approximately 550 gallons of Reactor Coolant System liquid was released to the floor and Auxiliary Building sump system. High airborne contamination resulted in the area surrounding the makeup pump cubicles primarily on the 281 ft. elevation of the Auxiliary Building which prompted the declaration of a Local Emergency within the building.

The leakage resulted in a release through the plant vent of approximately 300mCi of fission products over the 2 hour duration of the leak. No measurable change in radioactivity levels were observed either on or off site. Therefore, there existed no hazard to the health and safety of the public.

II. CAUSE OF THE OCCURRENCE

The leakage from the line was apparently initiated by the pressure surge associated with the startup of makeup pump MU-P-1A. The cause may have been an inadequately tightened compression fitting; however, this cannot be investigated and confirmed due to ALARA considerations.

III. CIRCUMSTANCES SURROUNDING THE OCCURRENCE

At the time of the occurrence, the Unit II facility was in a long term cold shutdown state described as Mode 5 operation by the Technical Specifications. The reactor decay heat was being removed via natural circulation to the A steam generator which is operating in a 'steaming' mode. Throughout the make up pump system line leakage there was no Loss of Natural Circulation in the RCS system.

IV. CORRECTIVE ACTIONS TAKEN OR TO BE TAKEN

After the exact location of the leakage was confirmed, the "B" makeup pump was secured to eliminate the leak's pressure source. The reactor coolant system pressure and volume control normally provided by the makeup and purification system was then accomplished by placing the standby pressure/volume control system in service. The leak was then isolated and subsequently capped. The pressure switch isolated with the lost test connection valve, did not provide a safety function and will remain isolated in future pump operations during the TMI-II recovery program.

V. COMPONENT FAILURE DATA

N/A