

# REPORT OF ABNORMAL OCCURRENCE AND/OR INCIDENT

## NRC DISTRIBUTION FOR PART 50 DOCKET MATERIAL (TEMPORARY FORM)

CONTROL NO: 9622

FILE: INCIDENT REPORT FILE

FROM: Metropolitan Edison Co. Reading, PA. R.C. Arnold		DATE OF DOC 8-29-75	DATE REC'D 9-10-75	LTR XX	TWX	RPT	OTHER
TO:		ORIG	CC	OTHER	SENT AEC PDR XXX		
NRC		1 Signed			SENT LOCAL PDR XXX		
CLASS	UNCLASS	PROP INFO	INPUT	NO CYS REC'D	DOCKET NO:		
XXX				1	50-289		

### DESCRIPTION:

Abnormal Occurrence # 75-27, on 8-21-75  
Concerning A Socket weld leak in the suction  
vent line for the Make-Up Pump (MU-P-1A).....

### ENCLOSURES:

PLANT NAME: Three Mile Island #1

### FOR ACTION/INFORMATION

SAB 9-11-75

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CLARK (L) W/ Copies	STOLZ (L) W/ Copies	DICKER (E) W/ Copies	LEAR (L) W/ Copies
PARR (L) W/ Copies	VASSALLO (L) W/ Copies	KNIGHTON (E) W/ Copies	SPELS W/ Copies
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**ACKNOWLEDGED**  
**DO NOT REMOVE**

### INTERNAL DISTRIBUTION

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### EXTERNAL DISTRIBUTION

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1 - TIC (ABERNATHY) (1)(2)(10)	1 - W. PENNINGTON, Rm E-201 GT	1 - BROOKHAVEN NAT LAB
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POOR ORIGINAL

Director  
Division of Reactor Licensing  
U. S. Nuclear Regulatory Commission  
Washington, D.C. 20555  
Dear Sir:

In accordance with the Technical Specifications of  
Nuclear Station Unit 1 (TMI-1), we are reporting the  
occurrence:

Docket No. 50-289  
Operating License No. DPR-

- (1) Report Number: AO 50-289/75-27
- (2a) Report Date: August 29, 1975
- (2b) Occurrence Date: August 21, 1975
- (3) Facility: Three Mile Island Nuclear Station Unit 1
- (4) Identification of Occurrence:  
Title: A socket weld leak in the suction vent line for  
Pump (MU-P-1A).  
Type: An abnormal occurrence as defined by the Technical  
paragraph 1.8e, in that the leak from this Make-Up  
Vent Line constituted abnormal degradation of a sys  
designed to contain radioactive materials.

- (5) Conditions Prior to Occurrence:  
Power: Core: 100%  
Elect.: 836 MWe (Gross)  
RC Flow:  $140 \times 10^6$  lb/hr  
RC Press.: 2155 psig  
RC Temp.: 579°F  
PRZR Level: 240 inches

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PRZR Temp.: 650°F

(6) Description of Occurrence:

On August 21, 1975 during a routine inspection of the Auxiliary Building a small crack and leak was discovered in the "A" Make-Up Pump suction vent line socket weld adjacent to the 6 inch diameter pump suction line. This crack was diametrically opposite to the crack reported in AO 50-289/75-22.

Immediately upon discovery the leak was isolated.

(7) Designation of Apparent Cause of Occurrence:

Continued vibration of the Make-Up Pump suction line created a fatigue crack in this vent line weld at the edge of the repair made July 11, 1975 as a corrective action for AO 50-289/75-22. It should be noted that the weld had successfully passed a 750 psig hydrostatic test following the July 11, 1975 repair. It is believed that the 3 rigid pipe guides for the Make-Up Pump suction line do not provide adequate dampening to restrict the vibrational amplitude of the suction vent line, consequently fatigue failure can occur. Therefore, the apparent cause of this occurrence is design/material.

(8) Analysis of Occurrence:

It has been determined that this occurrence did not represent a threat to the health or safety of the public, in that

- a. only two Make-Up Pumps are required for normal system operation,
- b. the effected pump was immediately isolated, and
- c. no detectable increase in radiation levels were observed.

(9) Corrective Actions:

In addition to the immediate corrective action to isolate the leak, long term corrective actions include:

- a. the weld crack was repaired and hydrostatically tested to 760 psig
- b. the three inch section of vent line adjacent to the suction line will be replaced with new piping
- c. the 3 rigid pipe guides on the suction line will be rebuilt in order to restrict vibrational amplitude of the suction line and thereby the vibrational amplitude of the suction vent line.

The Plant Operations Review Committee and Station Superintendent have reviewed and approved the above listed corrective actions.


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(10) Failure Data:

Pipe: 3/4 inch diameter Schedule 40S ASTM A 312, type 304 Stainless  
Steel Socket Weld.

Similar Occurrences: AO 50-289/75-22

Sincerely,



R. C. Arnold  
Vice President

RCA:CWS:tas

cc: Office of Inspection and Enforcement, Region 1

File: 20.1.1 / 7.7.3.5.1

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