

LICENSEE EVENT REPORT

Attachment 1 TLL 095

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

01 | P | A | T | M | I | 1 | 1 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 3 | 4 | 1 | 1 | 1 | 1 | 4 | _____ | 5
7 8 9 14 15 25 26 30 57 58

CON'T
01 | L | 0 | 5 | 0 | 0 | 0 | 2 | 8 | 9 | 7 | 0 | 2 | 0 | 6 | 8 | 0 | 8 | 0 | 2 | 2 | 9 | 8 | 0 | 9
7 8 50 61 68 69 74 75 80

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

02 | During valve modifications the valve seat hold-down devices for HPI pump
03 | discharge check valves (MU-V73A/73C) were found to be loose. Loose valve
04 | internals could potentially block the valve outlet reducing HPI pump flows. This
05 | is considered to be reportable under the requirements of Technical Specification
06 | 6.9.2.A(9).
07 | _____
08 | _____

09 | C | G | 11 | E | 12 | D | 13 | V | A | L | V | E | X | 14 | C | 15 | A | 16
7 8 9 10 11 12 13 14 15 16 17 18 19 20
17 | 8 | 0 | 21 | 0 | 0 | 3 | 24 | 0 | 1 | 28 | T | 31 | 1 | 32
21 22 23 24 25 26 27 28 29 30 31 32
18 | X | 19 | Z | 20 | Z | 21 | 0 | 0 | 0 | 0 | 22 | Y | 23 | N | 24 | A | 25 | C | 2 | 5 | 5 | 26
33 34 35 36 37 38 39 40 41 42 43 44 45 46 47

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

10 | Preliminary evaluation of the cause is possible corrosion of the seat hold down
11 | devices. A continuing inspection program and design study are being developed to
12 | determine the scope of the problem and plan corrective actions.
13 | _____
14 | _____

15 | X | 28 | 0 | 0 | 0 | 29 | NRC Order | 30 | C | 31 | IE Circular 78-15 Modifications | 32
7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32

16 | Z | 33 | Z | 34 | NA | 35 | NA | 36
7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32

17 | 0 | 0 | 0 | 37 | Z | 38 | NA | 39
7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32

18 | 0 | 0 | 0 | 40 | NA | 41
7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32

19 | D | 42 | Check valve made more prone to malfunction | 43
7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32

20 | N | 44 | NA | 45
7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32

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NARRATIVE REPORT
LER 80-003/01T-1

I. EXPLANATION OF OCCURRENCE

During valve modifications (per IE Circular 78-15) the valve seat hold-down devices for HPI pump discharge check valves (MU-V73A/73C) were found to be loose. The loose seat hold down devices were found on February 6, 1980. In this condition, the potential exists that the valve discs will restrict normal discharge flow from the two affected pumps. However, the discs were found in their normal orientation indicating that they would perform their normal function of back flow prevention (with some possible leakage around the loose seat gaskets). This event is considered reportable under the requirements of Technical Specification 6.9.2.A(9).

II. CAUSE OF OCCURRENCE

The cause of the occurrence is presently unknown, however, preliminary evaluations indicate corrosion of the seat hold down devices to be a factor. Subject valves are 3"-1500#-Chapman Figure 1573 S. S. tilting disc check valves. The attached matrix is a list of other Chapman tilting disc check valves in TMI Unit I. Although the sizes vary, the design is identical for the seat hold-downs.

Parts from MU-V73C are undergoing laboratory analysis to determine the mode of failure. The valve vendor is assisting in evaluation and resolution of problems as they are identified to him.

III. CIRCUMSTANCES SURROUNDING OCCURRENCE

This condition was discovered during modification of the valves that involved installation of stop pins (in accordance with I. E. Circular 78-15). The plant was in long-term cold shutdown with core cooling being provided by the "B" Decay Heat System.

IV. CORRECTIVE ACTION TO BE TAKEN TO PREVENT RECURRENCE

Upon determination of the cause for the failure, appropriate corrective action will be established. Consideration will also be given to other Unit -I Chapman tilting disc check valves, all of which are listed in the attached matrix. Although the valves vary in size, the design is identical for the seat hold-downs.

Installation of stop pins per I.E. Circular 78-15 will continue with inspections and repairs. Followup reports will be submitted that will address the results of investigations into cause of occurrence and resulting corrective action for all valves listed on the attachment.

V. COMPONENT FAILURE DATA

MU-V73A-C are 3"-1500# Chapman, Figure 1573, stainless steel tilting disc check valves.

TMI UNIT #1 TILTING DISC CHECK VALVES

Tag Number	Bill of Material Number	Service	Position	Size
MU-V-73A	RO-77	MU Pumps - Discharge Check	Vertical	3"
MU-V-73B	RO-77	MU Pumps - Discharge Check	Vertical	3"
MU-V-73C	RO-77	MU Pumps - Discharge Check	Vertical	3"
MU-V-79	RO-79	MU Pumps Fill Line Check	Horizontal	2½"
MU-V-86A	RO-78	High Pressure Injection Check At Loop	Horizontal	2½"
MU-V-86B	RO-78	High Pressure Injection Check At Loop	Horizontal	2½"
MU-V-94	RO-78	High Pressure Injection Isolation Loop A	Horizontal	2½"
MU-V-95	RO-78	High Pressure Injection Isolation Loop A	Horizontal	2½"
MU-V-107A	RO-78	HPI Containment Isolation Checks	Horizontal	2½"
MU-V-107B	RO-78	HPI Containment Isolation Checks	Horizontal	2½"
MU-V-107C	RO-78	HPI Containment Isolation Checks	Horizontal	2½"
MU-V-107D	RO-78	HPI Containment Isolation Checks	Horizontal	2½"
EF-V-11A	RO-105	Circ. Water E.F.P. Discharge	Vertical	4"
EF-V-11B	RO-105	Circ. Water E.F.P. Discharge	Vertical	4"
EF-V-12A	RO-103	Emergency F.W. Pump Discharge at Steam Generator	Horizontal	6"
EF-V-12B	RO-103	Emergency F.W. Pump Discharge at Steam Generator	Horizontal	6"
EF-V-13	RO-103	EFPIA Discharge	Vertical	6"
DH-V-22A	RO-75	D. H. Discharge into Core Flooding Lines	Vertical	10"
DH-V-22B	RO-75	D. H. Discharge into Core Flooding Lines	Horizontal	10"
FW-V-9A*	RO-71	Main Feed Pump Discharge	Horizontal	20"
FW-V-9B*	RO-71	Main Feed Pump Discharge	Horizontal	20"
FW-V-12A*	RO-72	Feed Water To Steam Generator	Horizontal	20"
FW-V-12B*	RO-72	Feed Water To Steam Generator	Horizontal	20"

*Drawings show stop pins were installed in valves when bought

Attachment 2
TLL 095