

LICENSEE EVENT REPORT

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

0 1 | P | A | T | M | I | 1 | 2 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 3 | 4 | 1 | 1 | 1 | 1 | 4 | \_\_\_\_\_ | 5  
7 8 9 LICENSEE CODE 14 15 LICENSE NUMBER 25 26 LICENSE TYPE 30 57 CAT 58

CON'T  
0 1 | X | 6 | 0 | 5 | 0 | 0 | 0 | 2 | 8 | 9 | 7 | 0 | 8 | 3 | 1 | 8 | 2 | 8 | 1 | 0 | 2 | 8 | 8 | 2 | 9  
7 8 REPORT SOURCE 60 61 DOCKET NUMBER 68 69 EVENT DATE 74 75 REPORT DATE 80

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

0 2 | During long term cold shutdown, GPUN was notified by Wyle Labs that our PORV  
0 3 | which had been shipped to them for refurbishment, was severely corroded. Some  
0 4 | question exists if the valve could have performed its intended function if  
0 5 | called upon in its present condition. A spare valve is installed at TMI-1 now  
0 6 | and has functioned. Therefore, public health and safety were unaffected. This  
0 7 | is not reportable per specific Technical Specification requirements. Information  
0 8 | being provided as a special report. \_\_\_\_\_ 80

0 9 | C | J | 11 | E | 12 | D | 13 | V | A | L | V | E | X | 14 | F | 15 | B | 16  
7 8 SYSTEM CODE 9 10 CAUSE CODE 11 12 CAUSE SUBCODE 13 14 COMPONENT CODE 15 16 COMP. SUBCODE 17 18 VALVE SUBCODE 19 20  
17 | 8 | 2 | 21 | 22 | 0 | 1 | 1 | 23 | 24 | 26 | 27 | 9 | 9 | 28 | 29 | X | 30 | 31 | 0 | 32  
LER/RO REPORT NUMBER 21 22 EVENT YEAR 23 24 SEQUENTIAL REPORT NO. 25 26 OCCURRENCE CODE 27 28 REPORT TYPE 29 30 REVISION NO. 31 32  
18 | D | 18 | X | 19 | Z | 20 | Z | 21 | 0 | 0 | 0 | 0 | 22 | Y | 23 | Y | 24 | N | 25 | B | 0 | 1 | 1 | 5 | 26  
ACTION TAKEN 33 34 FUTURE ACTION 35 36 EFFECT ON PLANT 37 38 SHUTDOWN METHOD 39 40 HOURS 41 42 ATTACHMENT SUBMITTED 43 44 NPRO-4 FORM SUB. 45 46 PRIME COMP. SUPPLIER 47 48 COMPONENT MANUFACTURER 49 50

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

1 0 | Cause has not yet been determined. Exhaustive investigative programs have been  
1 1 | initiated. Long term corrective actions will be reported after source of corro-  
1 2 | sion has been identified.  
1 3 | \_\_\_\_\_  
1 4 | \_\_\_\_\_ 80

1 5 | X | 28 | 0 | 0 | 0 | 29 | NRC Order | 30 | D | 31 | Vendor Notification | 32  
7 8 FACILITY STATUS 9 10 % POWER 11 12 OTHER STATUS 13 14 METHOD OF DISCOVERY 15 16 DISCOVERY DESCRIPTION 17 18

1 6 | Z | 33 | Z | 34 | N/A | 35 | N/A | 36  
7 8 ACTIVITY CONTENT 9 10 RELEASED OF RELEASE 11 12 AMOUNT OF ACTIVITY 13 14 LOCATION OF RELEASE 15 16

1 7 | 0 | 0 | 0 | 37 | Z | 38 | N/A | 39  
7 8 PERSONNEL EXPOSURES 9 10 NUMBER 11 12 TYPE 13 14 DESCRIPTION 15 16

1 H | 0 | 0 | 0 | 40 | N/A | 41  
7 8 PERSONNEL INJURIES 9 10 NUMBER 11 12 DESCRIPTION 13 14

1 9 | Z | 42 | 8211060078 821028 | 43 | N/A | 44  
7 8 LOSS OF OR DAMAGE TO FACILITY 9 10 TYPE 11 12 DESCRIPTION 13 14

2 0 | N | 44 | PDR ADOCK 05000289 | 45 | N/A | 46  
7 8 PUBLICITY 9 10 ISSUED DESCRIPTION 11 12

NAME OF PREPARER C. J. Stephenson

PHONE (717) 948-8554

NRC USE ONLY

LER 82-011/99X-0

SPECIAL REPORT

I. Current Activities at the Time of the Occurrence

TMI-1 was in long term cold shutdown.

II. Leading Circumstances to the Occurrence

A PORV which was installed at the beginning of the second cycle (1976) was removed from service in 1981. In 1982, this valve was shipped to Wyle Laboratories for modification and recertification.

III. Description of the Occurrence

On August 11, 1982, GPU Nuclear Corporation was notified by Wyle Laboratories that the PORV was corroded and pitted. Wyle took photographs and wrote a description of what had been observed. Unfortunately, prior to testing and inspection, at Wyle Laboratories, the PORV was thoroughly cleaned. When the corrosion was later identified there was not sufficient residue for Wyle Labs to determine the cause of the corrosion. The following is a summary of information currently available:

- 1) Inconel X-750 parts were severely pitted.
- 2) Inconel 600 parts were severely pitted.
- 3) Martensitic Stainless Steel parts were severely pitted.
- 4) 304 Stainless Steel part was corroded.
- 5) Some sulphur has been found but not enough to state that it was the cause.
- 6) B&W Literature search indicates that the type of pitting found is usually caused by chlorides or sulphur.

Even though the source of corrosion has not yet been identified, our extensive investigative program is progressing.

IV. Significant Events Which Occurred as a Result of the Original Occurrence

None. However, from observation of the corroded parts, it appears that the valve was in a closed state when the corrosion attack occurred and it is likely that it would not have functioned properly as a result of the corrosion. A replacement PORV, which was installed in 1981, was actuated during Hot Functional Testing in September, 1981 and functioned properly.

V. Previous Events of a Similar Nature

None. Previous inspections never indicated the state of corrosion as observed at Wyle Laboratories.

VI. Root Cause of Occurrence

The root causes of the corrosion have not, as yet, been determined. The following have been completed or initiated in the process of determining the source of corrosion:

- 1) B&W is doing metallurgical examination of valve internals.
- 2) Safety valve loop seal piping was both visually and ultrasonically inspected. No evidence of corrosion, pitting or cracking was identified.
- 3) As part of OTSG Repair Program, the Reactor Vessel and Steam Generators were thoroughly inspected. No evidence of corrosion was identified.

VII. Immediate Corrective Action

Wyle Laboratories notified GPUN on August 11, 1982 and the TMI-1 Resident Inspector was notified by GPUN on August 16, 1982 after this event was determined to be reportable. An exhaustive investigative program was started as soon as initial observations and photos became available.

VIII. Long Term Corrective Action

No long term corrective action has been decided upon since the cause of the corrosion has not yet been identified.