

# LICENSEE EVENT REPORT

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

01 | T | N | S | N | P | 1 | 2 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 3 | 4 | 1 | 1 | 1 | 1 | 4 | \_\_\_\_\_ | 5  
7 8 9 14 15 25 26 57 CAT 56  
LICENSEE CODE LICENSE NUMBER LICENSE TYPE JO

CONT  
01 | R | E | P | O | R | T | S | O | U | R | C | E | L | 6 | 0 | 5 | | 0 | 0 | 0 | 3 | 2 | 7 | 7 | 1 | 0 | 0 | 5 | 8 | 10 | 8 | 1 | 0 | 1 | 7 | 8 | 0 | 9  
60 61 68 69 74 75 80  
REPORT SOURCE DOCKET NUMBER EVENT DATE REPORT DATE

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES 10

02 | Unit in mode 1 at 9.3% power. At 0325 (c) H. P. Technician noticed leakage underneath

03 | #3 reactor coolant pump. An inspection by the Shift Engineer determined the leakage

04 | to be coming from the seal injection line to RCP #3 (1½ inch pipe). The leak was

05 | declared to be pressure boundary leakage and a unit shutdown was initiated in accordance

06 | with Technical Specification 3.4.6.2. There was no effect upon public health or

07 | safety. Previous occurrences - none.

08 | \_\_\_\_\_

09 | C | B | 11 | B | 12 | A | 13 | P | 1 | P | E | X | X | 14 | A | 15 | Z | 16  
9 10 11 12 13 18 19 20  
SYSTEM CODE CAUSE CODE CAUSE SUBCODE COMPONENT CODE COMP SUBCODE VALVE SUBCODE

17 | 8 | 0 | 1 | 5 | 6 | 0 | 1 | T | 0  
21 22 23 24 26 27 28 29 30 31  
LEA/RD REPORT NUMBER EVENT YEAR SEQUENTIAL REPORT NO. OCCURRENCE CODE REPORT TYPE REVISION NO.

C | F | A | A | 0 | 1 | 0 | Y | N | N | X | 9 | 9 | 9 | 9  
33 34 35 36 37 40 41 42 43 44 47  
ACTION TAKEN FUTURE ACTION EFFECT ON PLANT SHUTDOWN METHOD HOURS ATTACHMENT SUBMITTED NPRO-4 FORM SUB PRIME COMP. SUPPLIER COMPONENT MANUFACTURER

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS 27

10 | The line apparently failed either due to vibration or inadvertent physical damage.

11 | The line was replaced and additional pipe supports were installed. Inspections were

12 | performed on the seal water injection lines and component cooling water lines to all

13 | RCPs. No indications of additional problems found.

14 | \_\_\_\_\_

15 | B | 26 | 0 | 0 | 0 | 9 | 29 | NA | B | 21 | H. P. Technician Observation  
9 10 12 13 44 45 46  
FACILITY STATUS % POWER OTHER STATUS METHOD OF DISCOVERY DISCOVERY DESCRIPTION

16 | Z | 33 | Z | 34 | NA | NA | 35 | NA | 36  
10 11 44 45  
ACTIVITY CONTENT RELEASED OF RELEASE AMOUNT OF ACTIVITY LOCATION OF RELEASE

17 | 0 | 0 | 0 | 37 | Z | 38 | NA | 39  
11 12 13  
PERSONNEL EXPOSURES NUMBER TYPE DESCRIPTION

18 | 0 | 0 | 0 | 40 | NA | 41  
11 12 13  
PERSONNEL INJURIES NUMBER DESCRIPTION

19 | Z | 42 | NA | 43  
11 12  
LOSS OF OR DAMAGE TO FACILITY TYPE DESCRIPTION

20 | Y | 44 | Verbal press release made on 10/5/80.  
14 15  
ISSUED DESCRIPTION

NRC USE ONLY

8010210 665

Tennessee Valley Authority  
Sequoyah Nuclear Plant

LER SUPPLEMENTAL INFORMATION

SRMO-50-327/80156 Technical Specification Involved 3.4.6.2

Reported Under Technical Specification 6.9.1.12.c

Date of Occurrence: 10/5/80 Time of Occurrence: 0325 (c)

Identification and Description of Occurrence:

During performance of SU 1.0 (Health Physics Radiation Survey), a H. P. Technician noticed leakage underneath #3 reactor coolant pump at 0325 (c). Shift Engineer investigation determined leakage to be coming from the seal water injection line in the area where the line is welded to the pump casing.

Conditions Prior to Occurrence:

Mode 1 entered at 2316 (c) on 10/4/80. Generator tied to grid at 9.3 % power at 0053 (c) on 10/5/80. Radiation surveys in progress.

Apparent Cause of Occurrence:

Investigation revealed an approximate 25% circumferential crack in the heat affected zone of the pipe adjacent to the pipe to casing weld. Crack apparently caused by fatigue due to vibration of seal water injection line or from inadvertent physical damage to line.

Analysis of Occurrence:

Continued operation under this condition could have resulted in a complete break of the seal water injection line causing leakage of reactor coolant and possible damage to the RCP seals.

Corrective Actions:

Unit entered mode 5 at 2318 on 10/5/80.

TVA Engineering Design has reviewed the analysis of the seal water injection line, but no conclusive reason why the failure occurred has been established. Two possible causes of the line failure are vibration and/or inadvertent physical damage. Based on these two possibilities, two supports, which will not adversely affect the overall qualifications of the line have been added for additional line protection.

The seal water injection line and weld neck flange were replaced. The weld was visually inspected and hydrostatically tested to 2280 psig at 525 degrees F in accordance with ASME Section XI Articles IWA-4000, IWA-5000, and IWB-5000.

Seal water injection lines and component cooling lines to thermal barrier welds of all Reactor Coolant pumps were visually inspected and dye penetrant checked with no indication of additional cracks.

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LER SUPPLEMENTAL INFORMATION

TVA Engineering Design is continuing to evaluate areas such as sources of vibration, a review of the movement data from preoperational tests, and configuration and qualification of other lines attached to the reactor coolant pumps, in order to establish a cause for the failure. Reanalysis of other seal injection lines revealed no problem on the other three RCPs.

Failure Data:

TVA and Westinghouse will perform a laboratory metallurgical analysis of the subject seal water injection line to aid in evaluation of the cause of the failure. The portion of the seal injection line where the crack occurred is furnished as part of the reactor coolant pump assembly.