

# LICENSEE EVENT REPORT

## UPDATE REPORT - PREVIOUS REPORT DATE 06-06-80

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

V A S P S 2 0 0 - 0 0 0 0 0 - 0 0 3 4 1 1 1 1 4 5  
 LICENSEE CODE 14 15 LICENSE NUMBER 25 26 LICENSE TYPE 30 31 CAT 58

REPORT SOURCE L 6 0 5 0 0 0 2 8 1 7 0 3 0 6 8 0 8 0 5 1 3 8 3 9  
 DOCKET NUMBER 68 69 EVENT DATE 74 75 REPORT DATE 80

### EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

With the Unit at cold shutdown, preparation for Type A testing revealed leakage through RSHX diaphragm plate seal welds. This is reportable per Technical Specification 6.6.2.a.9. Because the unit was at cold shutdown, the health and safety of the public were not affected.

SYSTEM CODE S B 11 CAUSE CODE A 12 CAUSE SUBCODE C 13 COMPONENT CODE H T E X C H 14 COMP. SUBCODE C 15 VALVE SUBCODE Z 16  
 LER/RO REPORT NUMBER 17 8 0 21 22 SEQUENTIAL REPORT NO. 0 0 5 24 26 OCCURRENCE CODE 0 1 28 29 REPORT TYPE X 30 31 REVISION NO. 1 32  
 ACTION TAKEN F 18 33 FUTURE ACTION B 19 34 EFFECT ON PLANT Z 20 35 SHUTDOWN METHOD Z 21 36 HOURS 0 0 0 0 37 40 ATTACHMENT SUBMITTED Y 23 41 NRC-4 FORM SUB. N 24 42 PRIME COMP. SUPPLIER A 25 43 COMPONENT MANUFACTURER Y 0 3 0 25 47

### CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

The leaking seal welds in the RSHX were attributed to lack of fusion and slag inclusion in the weld areas. The diaphragm seal welds were inspected and all defects were repaired and inspected by Non-destructive test methods. A design modification, incorporating a gasket to reduce diaphragm seal weld stress, due to external forces, was performed.

FACILITY STATUS G 28 8 9 % POWER 0 0 0 29 10 12 OTHER STATUS N/A 30 44 METHOD OF DISCOVERY B 31 45 DISCOVERY DESCRIPTION Preparation for Type "A" testing 32 46

ACTIVITY CONTENT RELEASED OF RELEASE Z 33 8 9 Z 34 10 11 AMOUNT OF ACTIVITY N/A 35 44 LOCATION OF RELEASE N/A 36 45

PERSONNEL EXPOSURES NUMBER 0 0 0 37 8 9 TYPE Z 38 11 12 DESCRIPTION N/A 39 44

PERSONNEL INJURIES NUMBER 0 0 0 40 8 9 DESCRIPTION N/A 41 44

LOSS OF OR DAMAGE TO FACILITY TYPE Z 42 8 9 DESCRIPTION N/A 43 44

PUBLICITY ISSUED DESCRIPTION N 44 8 9

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J. L. Wilson

ATTACHMENT 1

SURRY POWER STATION, UNIT NO. 2

DOCKET NO: 50-281

REPORT NO: 80-005/01X-1

EVENT DATE: 03-06-80

TITLE OF THE EVENT: RECIRCULATION SPRAY HEAT EXCHANGER

1. Description of the Event

During preparation for Type "A" testing, leakage was identified through Recirculation Spray Heat Exchanger diaphragm plate seal weld cracks. The components affected were 2-RS-E-1B, C, and D. This event is reportable per Tech. Specs. 6.6.2.a.9.

2. Probable Consequences and Status of Redundant Equipment

The affected reactor unit was at cold shutdown and the leakage was discovered during testing, therefore, there were no consequences as a result of the event, and the health and safety of the public were not affected.

3. Cause

The leaking seal weld cracks are attributed to lack of fusion and slag inclusion in the weld areas from previous maintenance work.

4. Immediate Corrective Action

The immediate corrective action was to have the Architect-Engineer perform a detailed stress analysis on the heat exchangers to determine if a design error had been committed. Simultaneously, discussions were held with maintenance personnel and all maintenance histories were searched to determine the exact repairs that had been made to the affected components.

5. Subsequent Corrective Action

All defects found to date have been in the diaphragm plate seal weld area. All welds have been inspected by liquid penetrant method and all defects have been repaired. Stress analysis proved the design of the heat exchangers to be conservative; however, a modification has been made to incorporate a gasket between the diaphragm plate and heat exchanger cover to reduce stress on the diaphragm plate seal weld from external pressure forces.

6. Action Taken to Prevent Recurrence

No further corrective action is anticipated.

7. Generic Implications

Two of four RSHX's in unit 1 were subjected to maintenance by the manufacturer's (YUBA) Personnel. A Gasket has been installed in unit no. 1 RSHX's between diaphragm plate and heat exchanger cover. The welds on all four heat exchangers have been found to be free from flaws. This indicates the absence of generic implications.