

LICENSEE EVENT REPORT

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

LICENSEE CODE: V A S P S 2; LICENSE NUMBER: 000-000000-000; LICENSE TYPE: 411111; CAT: 5

REPORT SOURCE: L; SOCKET NUMBER: 05000281; EVENT DATE: 061582; REPORT DATE: 071282

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES

On 06-15-82, with the unit at 99%, charging pump service water pump 2-SW-P-10A was found to have zero discharge pressure as a result of loss of suction to the pump. Inoperability of this pump is contrary to T.S.3.3.A.8.b and is reportable per T.S.6.6.2.b(2). Since the redundant pump remained operable, the health and safety of the public were not affected.

SYSTEM CODE: WA; CAUSE CODE: X; CAUSE SUBCODE: Z; COMPONENT CODE: PUMPIXX; COMP. SUBCODE: B; VALVE SUBCODE: Z; LER/RD REPORT NUMBER: 82; SEQUENTIAL REPORT NO.: 037; OCCURRENCE CODE: 03; REPORT TYPE: L; REVISION NO.: 0; ACTION TAKEN: X; FUTURE ACTION: Z; EFFECT ON PLANT: Z; SHUTDOWN METHOD: Z; HOURS: 0000; ATTACHMENT SUBMITTED: Y; NRRD-4 FORM SUB.: N; PRIME COMP. SUPPLIER: A; COMPONENT MANUFACTURER: I075

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS

The low discharge pressure was due to insufficient NPSH. The service water to the chillers was throttled to provide sufficient NPSH for the charging pump service water pumps.

FACILITY STATUS: E; % POWER: 099; OTHER STATUS: N/A; METHOD OF DISCOVERY: A; DISCOVERY DESCRIPTION: Operator Observation

ACTIVITY RELEASED: Z; AMOUNT OF ACTIVITY: N/A; LOCATION OF RELEASE: N/A

PERSONNEL EXPOSURES: NUMBER: 000; TYPE: Z; DESCRIPTION: N/A

PERSONNEL INJURIES: NUMBER: 000; DESCRIPTION: N/A

LOSS OF OR DAMAGE TO FACILITY: TYPE: Z; DESCRIPTION: N/A

PUBLICITY ISSUED: N; DESCRIPTION: N/A

ATTACHMENT 1

SURRY POWER STATION, UNIT NO. 2

DOCKET NO: 50-281

REPORT NO: 82-037/03L-0

EVENT DATE: 06-15-82

TITLE OF THE EVENT: 2-SW-P-10A Low Discharge Pressure

1. DESCRIPTION OF THE EVENT:

On June 15, 1982, with the unit at 99% power, Charging Pump Service Water Pump 2-SW-P-10A failed to develop sufficient discharge pressure. This event is contrary to Technical Specification 3.3.A.8.b and is reportable in accordance with Technical Specification 6.6.2.b(2).

2. PROBABLE CONSEQUENCES and STATUS of REDUNDANT EQUIPMENT:

The charging pump service water pumps supply water to the charging pump intermediate seal coolers and the charging pump lubricating oil coolers. During this event, the redundant charging pump service water pump remained operable. Therefore, the health and safety of the public were not affected.

3. CAUSE OF THE EVENT:

The low discharge pressure was due to insufficient NPSH. Four charging pump service water pumps, along with three Air Conditioner chiller units are located in No. 3 equipment room. The aforementioned components are supplied with service water, via rotating strainers, from two 6" supply lines. Each supply line is gravity fed from the intake canal.

Two-inch branch lines supply service water to the charging pump service water pumps, while the service water lines to the chiller units are four-inch lines. Experience has shown that the NPSH available to the charging pump service water pumps is affected by the number of chiller units in operation. In addition, a previous inspection revealed marine growth fouling in the 6" service water supply lines. The majority of the service water supply piping was cleaned approximately one month before this event.

4. IMMEDIATE CORRECTIVE ACTION:

The immediate corrective action was to start the redundant pump, 2-SW-P-10B, which returned system pressure and flow to normal.

5. SUBSEQUENT CORRECTIVE ACTION:

The subsequent corrective action was to throttle the service water flow through the chillers and vent 2-SW-P-10A, flooding the pump suction line. The remaining 6 inch supply piping has been cleaned.

6. ACTION TAKEN TO PREVENT RECURRENCE:

An engineering evaluation of the service water system is in progress. A design change has been initiated that will relocate two of the charging pump service water pumps and increase the size of the suction piping to the pumps to increase the NPSH.

7. GENERIC IMPLICATIONS:

This is a generic problem to both units at Surry.