

LICENSEE EVENT REPORT

CONTROL BLOCK

(PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

V A S P S 1 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 DATE 58

REPORT SOURCE L 6 0 5 0 0 0 2 8 0 7 0 8 0 6 8 1 8 0 9 0 1 8 1 9
 DOCKET NUMBER 58 59 EVENT DATE 74 75 REPORT DATE 80

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

With the unit at 100% power, charging pump service water pumps 1-SW-P-10A and B were found to have zero discharge pressure, as a result of a loss of suction to the pumps. Similar losses of suction were experienced on pump 10B on August 10, 14 and 18. Inoperability of these pumps is contrary to TS-3.3.A.8.6 and reportable per T.S.-6.6.2.b.(2). The maximum time the pumps were inoperable was 20 minutes and pump operability was restored per T.S.3.3.B.6 and 3.0.1; therefore, the health and safety of the public were not affected.

SYSTEM CODE W A 11 CAUSE CODE X 12 CAUSE SUBCODE Z 13 COMPONENT CODE P U M P X X 14 COMP SUBCODE B 15 VALVE SUBCODE Z 16
 LER/RO REPORT NUMBER 17 EVENT YEAR 8 1 SEQUENTIAL REPORT NO. 0 3 7 OCCURRENCE CODE 0 3 REPORT TYPE L REVISION NO. 0
 ACTION TAKEN X 18 FUTURE ACTION 19 EFFECT ON PLANT Z 20 SHUTDOWN METHOD Z 21 HOURS 0 0 0 0 ATTACHMENT SUBMITTED Y 23 NRPD-4 FORM SUB. N 24 PRIME COMP. SUPPLIER A 25 COMPONENT MANUFACTURER 1 0 7 5 25

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

During the summer months, the increase use of service water by the chillers can cause a loss of suction pressure to the charging pump service water pumps. The suction strainers were checked, and/or cleaned and the service water to the chillers was throttled to increase flow to the charging pump service water pumps.

FACILITY STATUS E 28 N TOWER 1 0 0 29 OTHER STATUS N/A 30 METHOD C DISCOVERY A 31 DISCOVERY DESCRIPTION Operator Observation. 32
 ACTIVITY CONTENT Z 33 RELEASED OF RELEASE Z 34 AMOUNT OF ACTIVITY N/A 35 LOCATION OF RELEASE N/A 36
 PERSONNEL EXPOSURES NUMBER 0 0 0 37 TYPE Z 38 DESCRIPTION N/A 39
 PERSONNEL INJURIES NUMBER 0 0 0 40 DESCRIPTION N/A 41
 LOSS OF OR DAMAGE TO FACILITY TYPE Z 42 DESCRIPTION N/A 43
 PUBLICITY N 44
 ISSUED DESCRIPTION N/A 45

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NRC USE ONLY

ATTACHMENT 1
SURRY POWER STATION, UNIT 1
DOCKET NO: 30-280
REPORT NO: 81-037/03L-0
EVENT DATE: 08-06-81

TITLE OF THE EVENT: SERVICE WATER PUMPS, SW-P-10A, 10B, LOSS OF SUCTION

1. DESCRIPTION OF EVENT:

With the Unit at 100% power, the charging pump service water pumps 1-SW-P-10A and 10B were found to have zero discharge pressure. The pumps were secured and the strainers inspected. The "A" pump was restarted and operated satisfactorily. Shortly thereafter, the "B" pump was restarted and the "A" pump returned to Automatic.

On August 10, the "B" charging pump service water pump again experienced a loss of suction pressure. The service water to the chiller was reduced and the pump restarted.

On August 14, while performing PT 18.8 (charging pump component cooling and service water performance), the "B" service water pump was started and the "A" pump secured. The "B" pump failed to provide adequate discharge pressure and the "A" pump was restarted. The suction strainer was inspected and verified clear. The service water to the chillers was then throttled and the "B" pump restarted with satisfactory discharge pressure.

On August 18, 1-SW-P-10A started in auto and an operator was sent to clean the suction strainers. To provide adequate suction pressure, the service water to 1-VS-E-4C was throttled. Approximately two hours later, while adjusting the chiller service water, the 2nd pump again started on low discharge pressure. When the chiller service water flows were readjusted, the "B" pump was returned to auto.

Inoperability of the charging pump service water pumps is contrary to T.S.-3.3.A.8.b and is reportable in accordance with T.S.-6.6.2.b.(?).

2. PROBABLE CONSEQUENCES AND STATUS OF REDUNDANT EQUIPMENT:

The charging pump service water pumps supply cooling water to the charging pump intermediate seal oil coolers and the charging pump lubricating oil coolers. During the short periods when these pumps were inoperable, a maximum of 20 minutes, the charging pump temperature did not show any temperature increases. In all cases, the pumps were restored to service within the time limits of T.S.-3.3.B.6 and 3.0.1; therefore, the health and safety of the public were not affected.

3. CAUSE:

The service water piping for the charging pump service water pumps also supplies the Control Room/Relay Room air conditioner chiller units 1-VS-E-4A, B, and C. During the summer months the increased use of service water by the chillers can cause a loss of suction pressure to the charging pump service water pumps. Recent modifications (DC 80-42) attempted to resolve the NPSH problems for the service water system. Installation and Testing, completed in early spring, indicated satisfactory performance; however, an intermittent problem is now indicated.

4. IMMEDIATE CORRECTIVE ACTION:

The suction strainers were checked and/or cleaned and the service water to the chillers was throttled to increase the flow to the charging pump service water pumps.

5. SUBSEQUENT CORRECTIVE ACTION:

None taken.

6. ACTION TAKEN TO PREVENT RECURRENCE:

Further evaluation will be conducted to determine if additional modifications are required to resolve the marginal NPSH Conditions.

7. GENERIC IMPLICATIONS:

This is generic to both units. A related occurrence is reported on LER 81-051/03L-0 for Unit 2.