

ATTACHMENT 1
SURRY POWER STATION, UNIT 2
DOCKET NO: 50-281
REPORT NO: 81-053/03L-0
EVENT DATE: 08-16-81

TITLE OF THE EVENT: CHECK VALVE 2-SW-108 FAILURE

1. DESCRIPTION OF EVENT:

With Unit 2 at 100% power, during the performance of planned weekly maintenance on the charging pump service water pump suction strainers, the shaft of standby pump 2-SW-P-10B was noted to be rotating backwards. To investigate the cause, it was necessary to isolate pump 2-SW-P-10B. The reverse flow was discovered to be the result of check valve 2-SW-108 failing to seat properly.

Isolation of pump 2-SW-P-10B is contrary to T.S.-3.3.A.8.b, and reportable per T.S.-6.6.2.b.(2).

2. PROBABLE CONSEQUENCES AND STATUS OF REDUNDANT EQUIPMENT:

The charging pump service water pumps supply cooling water to the charging pump intermediate seal and lube oil coolers. With pump 2-SW-P-10B isolated, 2-SW-P-10A was operating and performing its intended function. Therefore, the health and safety of the public were not affected.

3. CAUSE:

Investigation revealed the cause of the check valve failure to be excessive play in the valve disc as a result of wear. The excessive play caused the disc to bind and not seat properly.

4. IMMEDIATE CORRECTIVE ACTION:

The check valve was isolated and repaired. Pump 2-SW-P-10B was then returned to standby service.

5. SUBSEQUENT CORRECTIVE ACTION:

None required.

6. ACTIONS TAKEN TO PREVENT RECURRENCE:

Two replacement valves have been ordered in anticipation of approaching valve end of life.

7. GENERIC IMPLICATIONS:

None.