NRC FORM 366 (7-77)

U.S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT

CONTROL BLOCK: (1) (PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

0 1 — LICENSEE CODE: V A S P S 1 (2) LICENSE NUMBER: 0 0 - 0 0 0 0 0 - 0 0 (3) LICENSE TYPE: 4 1 1 1 1 (4) CAT (5)

CON'T 0 1 — REPORT SOURCE: L (6) DOCKET NUMBER: 0 5 0 0 0 2 8 0 (7) EVENT DATE: 0 5 3 0 8 0 (8) REPORT DATE: 0 6 1 2 8 0 (9)

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

0 2 During steady state operation, it was determined that the assumed value for spray noz-
0 3 zle thermal effectiveness for the Outside Recirc. Spray system was less conservative
0 4 than assumed in the analysis for the interim NPSH modifications and the resulting Condi-
0 5 tion of License issued August 1978. This condition modified the basis for T.S.3.8. There-
0 6 fore, the containment internal air partial pressure and temperature may have been opera-
0 7 ted in a manner that was less conservative than assumed in the revised accident analysis.
0 8 This is reportable per T.S.6.6.2.a.9. The health & safety of the public was unaffected.

0 9 — SYSTEM CODE: S A (11) CAUSE CODE: X (12) CAUSE SUBCODE: Z (13) COMPONENT CODE: V E S S E L (14) COMP. SUBCODE: D (15) VALVE SUBCODE: Z (16)

(17) LER/RO REPORT NUMBER — EVENT YEAR: 8 0; — ; SEQUENTIAL REPORT NO.: 0 3 3; / ; OCCURRENCE CODE: 0 1; REPORT TYPE: T; — ; REVISION NO.: 0

ACTION TAKEN	FUTURE ACTION	EFFECT ON PLANT	SHUTDOWN METHOD	HOURS (22)	ATTACHMENT SUBMITTED	NPRD-4 FORM SUB.	PRIME COMP. SUPPLIER	COMPONENT MANUFACTURER
X (18)	H (19)	Z (20)	Z (21)	0 0 0 0	Y (23)	N (24)	A (25)	S 4 2 0 (26)

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

1 0 Operation with containment temperature and air partial pressure in a non-conservative
1 1 direction was caused by the error in the assumed spray thermal effectiveness value in
1 2 the NPSH report calculations performed for the interim NPSH modifications. Administrative
1 3 controls were instituted to assure operation within the new analysis.
1 4

1 5 — FACILITY STATUS: E (28) % POWER: 1 0 0 (29) OTHER STATUS (30): NA — METHOD OF DISCOVERY: A (31) DISCOVERY DESCRIPTION (32): Operational Event

1 6 — ACTIVITY RELEASED: Z (33) CONTENT OF RELEASE: Z (34) AMOUNT OF ACTIVITY (35): NA — LOCATION OF RELEASE (36): NA

1 7 — PERSONNEL EXPOSURES — NUMBER: 0 0 0 (37) TYPE: Z (38) DESCRIPTION (39): NA

1 8 — PERSONNEL INJURIES — NUMBER: 0 0 0 (40) DESCRIPTION (41): NA

1 9 — LOSS OF OR DAMAGE TO FACILITY (43) — TYPE: Z (42) DESCRIPTION: NA

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2 0 — PUBLICITY ISSUED: N (44) DESCRIPTION (45): NA — NRC USE ONLY

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ATTACHMENT I (PAGE 1 OF 1)
SURRY POWER STATION, UNIT NO. 1
DOCKET NO: 50-280
REPORT NO: 80-033/01T-0
EVENT DATE: 5-30-80

TITLE OF EVENT: EXCESSIVE CONTAINMENT PRESSURE AND TEMPERATURE

1. DESCRIPTION OF EVENT:

During normal steady state operation, a non-conservative assumption in the interim NPSH analysis of the Outside Recirc. Spray Pumps (Unit 1) was identified that was less conservative than that in the analysis for the basis of T.S.3.8 as amended by the August 1978 Condition of License. Therefore, the containment internal air partial pressure and temperature may have been operated in a manner that was less conservative than assumed in the revised accident analysis.

2. PROBABLE CONSEQUENCES AND STATUS OF REDUNDANT SYSTEMS:

Implementation of a portion of the long term NPSH modifications have been recently completed during the Unit 1 outage to correct the reduced spray thermal effectiveness. With the interim NPSH modification installed, certain temperature and air partial pressure conditions in the containment and certain service water temperatures, the Outside Recirc. Spray Nozzle thermal effectiveness would have been less than assumed in the interim analysis if accident conditions had existed. Therefore, the containment pressure transient could have been extended and require longer to return to and remain at sub-atmospheric conditions than determined by the revised accident analysis.

All equipment remained operational and the health and safety of the public was not affected.

3. CAUSE:

Due to NPSH considerations of the Unit 1 Outside Recirc. Spray pumps, flow was restricted. This reduced the nozzle thermal effectiveness which was not taken into consideration in performing the interim NPSH analysis. Initial analysis indicated that plant operation could continue with existing containment temperature and pressure limits. However, reanalysis indicated that more restrictive changes are needed for T.S. 3.8. A request to change Technical Specification has been submitted and administrative controls implemented to maintain proper temperature pressure relationships.

4. IMMEDIATE CORRECTIVE ACTION:

Action was taken to implement administrative controls to assure containment air partial pressure and temperature are maintained within the limits of the proposed T.S. change.

5. SUBSEQUENT CORRECTIVE ACTION:

None required.

6. FUTURE CORRECTIVE ACTION:

The final design change has been completed on Unit 2 during the present outage and the balance of the final design change on Unit 1 will be completed during the next refueling. These interim requirements will then not be required.

7. GENERIC IMPLICATIONS:

None.