NRC FORM 366 (7-77)

U.S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT

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

01 LICENSEE CODE: VASPS1 (2) LICENSE NUMBER: 00-00000-00 (3) LICENSE TYPE: 41111 (4) CAT (5)

CON'T 01 REPORT SOURCE: L (6) DOCKET NUMBER: 05000280 (7) EVENT DATE: 101178 (8) REPORT DATE: 110678 (9)

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

02 With the unit at rated power, routine surveillance of heat tracing systems disclosed
03 possible faults in circuits 23A (Panel 1), 23A (Panel 2) and circuits 24D (Panel 1),
04 24D (Panel 2). Each is a paired redundant circuit. Circuits 23A are to the outlet
05 piping from the boron injection tank and circuits 24D are recirc bypass piping to
06 the boron injection tank. This is contrary to T.S. 3.2.B.5 and is reportable per
07 T.S. 6.6.2.b.(2). The health and safety of the public were not affected.
08

09 SYSTEM CODE: SH (11) CAUSE CODE: E (12) CAUSE SUBCODE: A (13) COMPONENT CODE: HEATER (14) COMP. SUBCODE: Z (15) VALVE SUBCODE: Z (16)

(17) LER/RO REPORT NUMBER: EVENT YEAR: 78 — SEQUENTIAL REPORT NO.: 032 / OCCURRENCE CODE: 03 REPORT TYPE: L — REVISION NO.: 0

ACTION TAKEN: A (18) FUTURE ACTION: Z (19) EFFECT ON PLANT: B (20) SHUTDOWN METHOD: Z (21) HOURS (22): 0005 ATTACHMENT SUBMITTED: Y (23) NPRD-4 FORM SUB.: N (24) PRIME COMP. SUPPLIER: A (25) COMPONENT MANUFACTURER: C268 (26)

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

10 Heat tracing circuit faults had occurred as a result of boric acid incursion. The
11 faults were repaired and circuit currents verified.
12
13
14

15 FACILITY STATUS: E (28) % POWER: 100 (29) OTHER STATUS (30): NA METHOD OF DISCOVERY: B (31) DISCOVERY DESCRIPTION (32): Surveillance Testing

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

PERSONNEL EXPOSURES

17 NUMBER: 000 (37) TYPE: Z (38) DESCRIPTION (39): NA

PERSONNEL INJURIES

18 NUMBER: 000 (40) DESCRIPTION (41): NA

LOSS OF OR DAMAGE TO FACILITY (43)

19 TYPE: Z (42) DESCRIPTION: NA

PUBLICITY

20 ISSUED: N (44) DESCRIPTION (45): NA

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GPO 917-926

Surry Power Station, Unit 1
Docket No: 50-280
Report No: 78-032/03L-0
Event Date: 10-11-78

Heat Tracing Low Current

1. Description:

With the unit in normal operation at rated power, routine surveillance indicated that Heat Tracing Circuits 23A (Panels 1 and 2) and Circuits 24D (Panels 1 and 2) were operating at less than the currents specified in the surveillance document. Each of the circuits in question are paired redundant circuits. Circuits 23A serve the outlet piping from the Boron Injection tank and circuits 24D serve the Boron Injection tank recirc piping.

An orderly shutdown was initiated at approximately 0940. Concurrently, an investigation for faulty heat trace tape was initiated. Relief valve 1857 in the Boron Injection Tank outlet piping had indications of leakage and boric acid attack on the tape causing the fault; thus, causing the low current in circuits 23A. Valve 1-SI-77 in the Boron Injection tank recirc piping was found coated with boric acid crystals indicating a leak in the past. Again, boric acid had attacked the tape causing the fault. Repairs to the tapes were completed and the circuit currents verified. Unit rampdown was terminated at 1430 and the unit was returned to rated power.

The event constitutes a condition contrary to Technical Specification 3.2.B.5 and is reportable in accordance with Technical Specification 6.6.2.b.(2).

2. Probable Consequences/Status of Redundant Systems:

At all times during the event, temperatures in the Boron Injection tank outlet piping and recirc piping were maintained as required. There were two operable flow paths for boric acid to the reactor at all times. Accordingly, the health and safety of the public were not affected.

3. Cause:

The reduced currents was the result of boric acid damage to the heat tapes in the sections of piping. In turn, the boric acid damage was the result of leakage from a valve fitting in the piping which deposited boric acid crystals.

4. Immediate Corrective Actions:

Valve fitting leaks were repaired, piping and fittings cleaned and damaged heat tracing replaced.

5. Scheduled Corrective Action:

The problem was corrected immediately and no further action is deemed necessary.

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6. Actions Taken to Prevent Recurrence:

Continuous surveillance is maintained on the heat tracing systems required for unit operation. No additional action is considered necessary.

7. Generic Implications:

This failure, as with others in the system, is considered random since no specific circuit or panel has exhibited repeated failure.