

Surry Power Station, Unit 1
Docket No: 50-280
Report No: 78-033/03L-0
Event Date: 10-15-78

Low Current Heat Tracing

1. Description of Event:

With the unit in normal operation at rated power, routine surveillance indicated that heat tracing circuit 24C (Panel 8) was operating at less than the current specified in the surveillance document. No low temperature alarm was indicated.

Verification was obtained that the redundant circuit 24C (Panel 9) was operable. Investigation for faulty heat tracing was initiated on the affected circuit. Faults were found on circuit 24C (Panel 8) serving Unit 1 boric acid-to-blender flow transmitter, and was identified as boric acid buildup on strip heater. The strip heater was replaced, load checked, and the current value was verified to be within limits delineated in the surveillance document.

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 System:

At all times during the event, the temperature in the piping, served by the affected circuit, was above minimum limits. The redundant circuit was operable. Therefore, the health and safety of the public were not affected.

3. Cause:

The low current reading was due to boric acid buildup on the strip heater serving the flow transmitter. No source of the leakage leading to buildup on the strip heater was evident. All potential sources had been corrected previously.

4. Immediate Corrective Action:

It was verified that the redundant circuit 24C (Panel 9) was operable. The defective strip heater was replaced.

5. Scheduled Corrective Action:

The problem was corrected by heater replacement and no further action is required.

6. Action Taken to Prevent Recurrence:

Routine periodic surveillance is carried out on the heat tracing systems as required for unit operation. This surveillance has identified problems for timely connection, therefore no additional measures are 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.