

ATTACHMENT 1 TO AEP:NRC:1166C

REVISIONS TO TECHNICAL SPECIFICATIONS 4.4.5.4.a.10 and 4.4.5.5.e

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REACTOR COOLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

around the U-bend to the top support of the cold leg. For a tube in which the tube support plate elevation interim plugging limit has been applied, the inspection will include all the hot leg intersections and all cold leg intersections down to, at least, the level of the last crack indication.

9. Sleeving a tube is permitted only in areas where the sleeve spans the tubesheet area and whose lower joint is at the primary fluid tubesheet face.
10. The Tube Support Plate Interim Plugging Criteria is used for disposition of a steam generator tube for continued service that is experiencing outer diameter initiated stress corrosion cracking confined within the thickness of the tube support plates. For application of the tube support plate interim plugging limit, the tube's disposition for continued service will be based upon standard bobbin probe signal amplitude. The plant-specific guidelines used for all inspections shall be amended as appropriate to accommodate the additional information needed to evaluate tube support plate signals with respect to the above voltage/depth parameters. Pending incorporation of the voltage verification requirement in ASME standard verifications, an ASME standard calibrated against the laboratory standard will be utilized in the Donald C. Cook Nuclear Plant Unit 1 steam generator inspections for consistent voltage normalization.
 1. A tube can remain in service if the signal amplitude of a crack indication is less than or equal to 1.0 volt, regardless of the depth of tube wall penetration, if, as a result, the projected end-of-cycle distribution of crack indications is verified to result in primary-to-secondary leakage less than 1 gpm in the faulted loop during a postulated steam line break event. The methodology for calculating expected leak rates from the projected crack distribution must be consistent with WCAP-13187, Rev. 0.
 2. A tube should be plugged or repaired if the signal amplitude of the crack indication is greater than 1.0 volt except as noted in 4.4.5.4.a.10.3 below.
 3. A tube can remain in service with a bobbin coil signal amplitude greater than 1.0 volt but less than or equal to 4.0 volts if a rotating pancake probe inspection does not detect degradation. Indications of degradation with a bobbin coil signal amplitude greater than 4.0 volts will be plugged or repaired.

REACTOR COOLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

- b. The steam generator shall be determined OPERABLE after completing the corresponding actions (plugging or sleeving all tubes exceeding the repair limit and all tubes containing through-wall cracks) required by Table 4.4-2.
- c. Steam generator tube repairs may be made in accordance with the methods described in either WCAP-12623 or GEN-313-P.

4.4.5.5 Reports

- a. Following each inservice inspection of steam generator tubes, if there are any tubes requiring plugging or sleeving, the number of tubes plugged or sleeved in each steam generator shall be reported to the Commission within 15 days.
- b. The complete results of the steam generator tube inservice inspection shall be included in the Annual Operating Report for the period in which this inspection was completed. This report shall include:
 - 1. Number and extent of tubes inspected.
 - 2. Location and percent of wall-thickness penetration for each indication of an imperfection.
 - 3. Identification of tubes plugged or sleeved.
- c. Results of steam generator tube inspections which fall into Category C-3 and require prompt notification of the Commission shall be reported pursuant to Specification 6.9.1 prior to resumption of plant operation. The written followup of this report shall provide a description of investigations conducted to determine cause of the tube degradation and corrective measures taken to prevent recurrence.
- d. The results of inspections performed under 4.4.5.2 for all tubes in which the tube support plate interim plugging criteria has been applied shall be reported to the Commission within 15 days following the inspection. The report shall include:
 - 1. Listing of applicable tubes.
 - 2. Location (applicable intersections per tube) and extent of degradation (voltage).
- e. The results of steam line break leakage analysis performed under T/S 4.4.5.4.a.10 will be reported to the Commission prior to restart for Cycle 13.

ATTACHMENT 2 TO AEP:NRC:1166C
LIST OF COMMITMENTS WITH RESPECT TO
INTERIM PLUGGING CRITERIA



Interim Plugging Criteria

A. EDDY CURRENT GUIDELINES

Bobbin Coil Probe

1. Bobbin Coil Probe Specification

See Section A.2.1 of Appendix A to WCAP-13187, Revision 0.

2. Bobbin Coil Calibration Standard

See Sections A.2.2 and A.2.3 of Appendix A to WCAP-13187, Revision 0.

3. Bobbin Coil Data Acquisition and Analysis

See Sections A.2.4, A.2.5, and A.2.6 of Appendix A to WCAP-13187, Revision 0.

Data evaluation of the bobbin signal will be conducted in accordance with Sections A.3.1, A.3.2, A.3.3, A.3.4, and A.3.7 of Appendix A to WCAP-13187, Revision 0, with the exception that the RPC threshold will be reduced to 1.0 volt from 1.5 volts.

4. Bobbin Coil Flaw Recording Guidelines

All flaw signals on the 400/100 mix channel at tube support intersections whose peak-to-peak voltage exceeds 1.0 volt must be recorded.

RPC Probe

1. RPC Probe Specification

See Section A.2.1 of Appendix A to WCAP-13187, Revision 0.

2. RPC Calibration Standard

See Section A.2.2 of Appendix A to WCAP-13187, Revision 0.

3. RPC Data Acquisition and Analysis

All tube support intersections with bobbin coil flaw indications registering greater than 1.0 volt shall be inspected with the RPC. See Section A.3.5 of Appendix to WCAP-13187, Revision 0.

4. RPC Flaw Recording Guidelines

For TSP intersections with a bobbin flaw indication voltage greater than 1 volt, all RPC indications of flaws shall be recorded.

B. RPC SAMPLE PROGRAM

A sample RPC inspection of tubes at TSP intersections will be performed. The program will include dents greater than 5 volts as measured by the bobbin and TSP intersection artifact indications or indications with unusual phase angles. This sample program will be performed on up to about 100 tube intersections. Expansion of the sample plan, if required, will be based on the nature and number of the flaws discovered. Tubes found to have RPC flaw indications will be appropriately dispositioned.

C. RPC REPORTS

The staff shall be informed prior to Cycle 13 operation of any unforeseen RPC findings relative to the characteristics of the flaws at the TSPs. This includes any detectable circumferential indication or detectable indications extending outside the thickness of the TSP. This report will also include a safety evaluation of these unforeseen findings.