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U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555

SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION (CPSES), UNIT 1
DOCKET NO. 50-445
INFORMATION CONCERNING STEAM GENERATOR
INSPECTION PRACTICES OF ALLOY 600 TUBES

REF: NEI Letter, from Mr. Alexander Marion to Mr. Richard Barrett of the NRC, dated February 4, 2003.

Gentlemen:

In the above referenced letter, Nuclear Energy Institute (NEI) notified the NRC of the development of a standard format designed to provide the NRC with information concerning licensee inspection practices at selected Pressurized Water Reactor (PWR) plants that may be susceptible to stress corrosion cracking of Alloy 600 tubes within their steam generator tubesheets.

The Attachment to this letter provides the appropriate information for CPSES Unit 1. If you have any questions please contact Mr. Bob Kidwell at (254) 897-5310.

This communication contains no new licensing basis commitments regarding CPSES Units 1.

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Sincerely,

TXU Generation Company LP

By: TXU Generation Management Company LLC,
Its General Partner

C. L. Terry
Senior Vice President and Principal Nuclear Officer

By: Roger D. Walker
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Regulatory Affairs Manager

RJK/rk
Attachment

c - E. W. Merschoff, Region IV
W. D. Johnson, Region IV
D. H. Jaffe, NRR
Resident Inspectors, CPSES

TUBESHEET INSPECTION PRACTICES

Plant Information

Plant Name: Comanche Peak Unit 1

T_{Hot}: 618.8

Normal Steady State Full Power DP: 1250 psi

Model of Steam Generator: Westinghouse Model D-4

Tube Material: 600MA

Tube Diameter: 0.75" with nominal wall thickness of 0.043"

Expansion Process and Extent: Full depth hard roll on ~90% of the tubes and full depth WEXTEX expansion on ~10% of the tubes

Tubesheet Thickness: 21"

Susceptible to degradation below expansion transition region:

Yes X **No** ___

If no, provide basis for non-susceptibility determination

Note: Shotpeening of the hot leg expanded tube region was performed prior to operation. This process has been shown through operating experience to effectively reduce the initiation potential for PWSCC indications within the expanded portion of tube in tubesheet.

Historical Inspection Practices and Results

Most recent outage:
1RF09 -- September 2002 - EOC 9

Inspection techniques used for tubesheet inspections:

- Bobbin coil
- +Point

Extent of tubesheet inspections:

- 100% of hot leg active tubes (bobbin; 21") (+Point +/- 3" about the top of tubesheet for hard rolled tubes and +3" through hot leg tube end for WEXTEX tubes and any hard rolled tubes that have partial tube expansions)

Inspection Results:

- Axial and circumferential ODSCC in the expansion transition
- Axial PWSCC in the expansion transition
- There were no indications identified below the roll transition at any Comanche Peak Unit 1 inspection

Bases for inspection technique and inspection extent:

The bobbin coil examination is capable of detecting significant axial and/or volumetric degradation throughout the full depth of the expanded tubesheet region and ensures compliance to Technical Specification surveillance requirements.

Rotating coil techniques (+Point) are used in the tubesheet region to adequately assess its structural and leakage integrity. The +Point techniques are qualified in accordance with Appendix H of the EPRI PWR Steam Generator Examination Guidelines and provide adequate detection capabilities for both axial and circumferential oriented degradation in this region of the tube bundle.

At the current time, a technical bases for establishment of minimum pullout and leakage resistance distances for WEXTEX expansion in ¾" tubing is not available. The +Point examination of the WEXTEX tubes from +3" through the tube end ensures that structural and leakage integrity performance criteria are satisfied for these tubes.

The +Point examination of the hard rolled tubes +/-3" from the hotleg tubesheet is based upon the F* alternate repair criteria as described in the Comanche Peak Unit 1 Technical Specification 5.5.9c (Plant specific WCAP-15004 Revision 1).

Previous outages:
1RF08 – March 2001

Inspection techniques used:
Same as stated above.

Extent of inspections:
Same as above except that the WEXTEX tubes were inspected +/-3" from the hotleg top-of-tubesheet.

Results:
Same as above

Bases for inspection technique and inspection extent:
Same bases for tubes with the hard roll expansion.

For the WEXTEX tubes the bases for inspection extent was a defense in depth philosophy. For circumferential degradation, tube interaction was used as a bases for non-peripheral tubes to prevent tube pull-out. For peripheral tubes (approximately 300 hot leg tubes), an expansion criteria was employed such that if cracking was identified below the expansion transition, these tubes would be inspected to -6". To ensure that leakage would not be an issue with the results of the bobbin inspection, the W* program was used to evaluate the bobbin performance for limiting axial indications within the tubesheet region. This assessment concluded that the bobbin probe's capability to detect axial cracks in expanded tubesheet sections before they exceeded leakage limits was acceptable. Additionally, Comanche Peak Unit 1 has had minimal degradation in the WEXTEX expansions (less than 5 total to date). The bulk of SCC eddy current indications have been observed in the hard rolled tubes. No degradation has been reported below the expansion transition region.

Planned Inspection for Next Outage
1RF10 – March 2004

Techniques to be used:
Inspection techniques, extents, and bases are anticipated to be identical to those described for 1RF09.