



Log # TXX-92270  
File # 903.9, 910.4  
10110 CP-89-015,019  
10130 IR 89-30,30

TU ELECTRIC

July 7, 1992

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U. S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
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SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION (CPSES) - UNIT 2  
DOCKET NO. 50-446  
AUXILIARY FEEDWATER SYSTEM CHECK VALVES  
SDAR CP-89-015 (INTERIM REPORT FOR UNIT 2)

Gentlemen:

On May 19, 1989, TU Electric orally notified the NRC of a deficiency involving backleakage through Auxiliary Feedwater (AFW) System check valves supplied by BW/IP International, Inc. On June 19, 1989, an interim report was submitted via TXX-89424. On June 26, 1989, TU Electric orally notified the NRC of a deficiency involving the manufacturing of BW/IP supplied check valve swing arms. On July 25, 1989, an interim report was submitted via TXX-89517. On October 26, 1989, TU Electric submitted a final report for the swing arm deficiency and an interim report for the backleakage events via TXX-89778 and stated that the scope of SDAR-CP-89-015 would be expanded to include the swing arm deficiency described in SDAR CP-89-019. On December 21, 1989, TU Electric submitted TXX-89849, SDAR CP-89-015, Final Report for Unit 1 - Interim Report for Unit 2. This is a interim report and provides the status of corrective action for commitments identified in TXX-89849 concerning Unit 2.

FOLLOW UP ON PREVIOUS UNIT 2 COMMITMENTS

TXX-89849 identified the following commitments:

"The safety significance of potential Unit 2 BW/IP check valve swing arm casting defects has not been specifically evaluated. This will be done prior to Unit 2 fuel load".

"The condition of Unit 2 BW/IP bolted bonnet and pressure seal check valves will be evaluated, dispositioned and corrected, as necessary, prior to Unit 2 fuel load".

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"Engineering and operations have reviewed the adequacy of the Feedwater Isolation Bypass Valve's (FIBV) as designed and installed. While these valves will perform their containment isolation function, administrative controls have been added to procedurally require that the FIBV's be isolated when the main feedwater pumps are not supplying flow during normal startup and shutdown. Additionally, a review was conducted to determine whether similar valves exist in other safety-related systems and whether additional protection should be provided by requiring associated isolation valves to remain closed during particular plant conditions was necessary. These corrective actions will be applied to applicable Unit 2 valves prior to Unit 2 fuel load".

"Unit 2 BW/IP check valves swing arms will be examined and reworked or replaced, as appropriate, prior to Unit 2 fuel load".

The status of corrective actions for the aforementioned commitments is provided below.

#### STATUS OF CORRECTIVE ACTION

##### Swing Arm Deficiency Safety Analysis

All BW/IP check valves swing arms in Unit 2 have been replaced with the investment cast type discussed in TXX-90033 dated January 23, 1990; TXX-90139, dated April 9, 1990 and; SSER 24, Section 3.9.1. Therefore, TU Electric believes that an evaluation of safety significance for previously installed swing arms is not necessary.

##### Condition of Bolted Bonnet and Pressure Seal BW/IP Check Valves

All pressure seal check valves have been modified with an internal spacer ring. The internal spacer ring, discussed in TXX-91076, dated March 22, 1991, positions the bonnet assembly at the height required for correct disc contact on the seat.

An external alignment device (also discussed in TXX-91076) prevents axial misalignment of the disc. Further evaluation of this modification has indicated that it is best to install after the bonnet nuts have been hot torqued. Therefore the external alignment device will be added after Hot Functional Testing but prior to fuel load.

An eight ounce counterweight discussed in TXX-90215, dated June 18, 1990, has been added to the disc stud of eight AFW System 4" pressure seal check valves to correct the disc seating problem at low differential pressures.

The bolted bonnet valves were not inspected for vertical or horizontal misalignment because their design assures proper alignment whereas the pressure seal design does not.

The swing arms in all installed BW/IP swing check valves have been replaced with investment cast swing arms. Additionally, all valves are inspected for clearance prior to reassembly after replacement of swing arms.

Modified check valves will be backflow tested if possible, or radiographed to verify proper operation prior to fuel load.

Administrative Controls for FIBVs - Isolation Valve Review.

Operational procedures for use in Unit 2 have been approved which require the FIBV's to be isolated when main feedwater pumps are not supplying flow during startup and shutdown. A review has also been conducted by Engineering to determine whether similar valves existed in other safety-related systems and whether additional protection should be provided by requiring associated isolation valves to remain closed during particular plant conditions. No other valves have been identified where additional protection was applicable.

Rework or Replace Swing Arms

See preceding paragraphs.

TU Electric has developed corrective actions in addition to those stated in TXX-89849. Actions include operational administrative controls and hardware changes such as relocation of orifices and modifications to temperature elements, remote operators and valve stems. These actions are being evaluated for implementation prior to fuel load.

Sincerely,

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TLX/ds

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