



Log # TXX-88240
File # 10110
907.2
Ref. # 10CFR50.55(e)

William G. Council
Executive Vice President

February 26, 1988

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D.C. 20555

SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)
DOCKET NOS. 50-445 AND 50-446
REACTOR TRIP SWITCHGEAR
SDAR: CP-83-09 (FINAL REPORT)

Gentlemen:

On April 20, 1983, TU Electric was notified by Westinghouse of an item involving the potential for misoperation of DS-416 reactor trip switchgear undervoltage attachments. Westinghouse reported this item to the NRC under 10 CFR21 for operating plants, and under 10CFR50.55(e) for plants under construction. Our position at that time was that since Westinghouse reported the item and was taking action to resolve the item, no formal report would be required from us. This was verified and approved in a teleconference between our S. Spencer and your R. G. Taylor on May 17, 1983. We assigned the SDAR number to this item in order to track corrective action taken. Our last report, logged TXX-6435, dated May 13, 1987, identified this issue as a reportable issue for which we were actively tracking the corrective actions.

This issue is reportable under the provisions of 10CFR50.55(e) and the necessary information follows.

DESCRIPTION

Westinghouse was informed by a utility that one Model DS-416 main reactor trip breaker at each of two plants did not trip during pre-planned testing of the undervoltage (UV) trip function.

Based upon a review at the plant site and at Westinghouse, the following items have been identified as the factors potentially involved in the reported occurrences:

- a. Manufacturing variations permitted interference between the moving core and the roller bracket on one of the UV devices. A further factor may have been lack of the side-to-side clearance of the roller bracket.
- b. Lack of minimum gap between the UV trip reset lever and the breaker trip bar pin appears to be related to the malfunction of the second UV device.

Westinghouse advised the operating plants on April 15, 1983, of an additional misoperation of another DS-416 undervoltage attachment.

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Investigation of this event revealed a missing retaining ring on one of the two undervoltage attachment pivot shafts. This allowed the pivot shaft to move laterally such that one end came out of its guide hole in the frame of the undervoltage attachment, and did not permit the attachment to operate on demand. A missing retaining ring was also identified at another plant. No misoperation of that attachment has been reported.

The Westinghouse evaluation of the retaining ring issue revealed a discrepancy in design. The groove in the shaft receiving the retaining ring was not increased in width to be consistent with an earlier (1972) retaining ring design change. The new retaining ring is wider than the original design and does not seat properly in the existing grooves.

SAFETY IMPLICATIONS

The design and manufacturing deficiencies increase the potential for misoperation of the DS-416 undervoltage attachment, thereby creating a condition wherein the reactor trip switchgear might not open on automatic demand from the reactor protection system. Therefore, this condition, were it to have remained uncorrected, could have adversely affected the safety of operations.

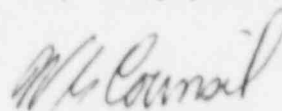
CORRECTIVE ACTIONS

Westinghouse has replaced the undervoltage and shunt trip coil assemblies and added an auto shunt trip panel on the DS-416 reactor trip switchgear, as documented in Field Change Notices (FCN) TCXM-10588, TCXM-10589, TBXM-10615, TBXM-10626, TBXM-10627, TBXM-10621 and TCXM-10592.

This completes the corrective action for this item. Since only the DS-416 type of breakers are affected by this condition, there are no generic implications for this item.

Supporting documentation is available at the CPSES site for your Inspector's review.

Very truly yours,



W. G. Council

JCH/grr

c-Mr. R. D. Martin, Region IV
Resident Inspectors, CPSES (3)