

Log # TXX-88142 File # 10110

907.2

Ref. # 10CFR50.55(e)

William G. Counsil Executive Vice President

January 25, 1988

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

SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION

DOCKET NOS. 50-445 AND 50-446

SAFETY SYSTEM SETPOINT CALCULATION ERRORS

SDAR: CP-87-104 (FINAL REPORT)

Gentlemen:

On September 14, 1987, we verbally notified your Mr. H. S. Phillips of a deficiency involving errors in protection actuation setpoint calculations for NSSS systems. Our last report was logged TXX-6852, dated October 14, 1987. We have conservatively concluded that this condition is reportable under the provisions of 10CFR50.55(e). The required information follows.

DESCRIPTION

Specifically, during the preparation of the protection actuation setpoint calculations for the NSSS Systems, no allowance for calibration inaccuracies was included in the calculations. These conditions were apparently due to an assumption made by the equipment supplier (Westinghouse) that the accuracy of the measuring and test equipment (M&TE) would be greater than the accuracy of the equipment being calibrated by a factor of ten. This assumption was based on SAMA Standard PMC-20-1-1973 entitled "Process Management and Control Terminology." Section 4.2 of the SAMA standard states that if the accuracy of the M&TE is ten times greater than the equipment being calibrated, inaccuracies of M&TE do not need to be considered.

When the "ten times" accuracy factor for M&TE is not followed and an allowance for M&TE inaccuracies is not included in the calculations, a reduction in the margin between the actual trip setpoints and the Safety Limits could result. Currently, the following setpoints have been identified as being affected by this issue:

- 1. Containment Pressure Hi-1, Hi-2, Hi-3
- 2. Pressurizer Pressure low SI
- 3. RWST low level
- 4. N-16 Overtemperature

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TXX-88142 January 25, 1988 Page 2 of 2

The M&TE utilized during the actual calibration had an accuracy equal to or greater than the equipment being calibrated. This deficiency is applicable to setpoints provided for the NSSS only.

SAFETY IMPLICATIONS

This condition represents a significant deficiency in design such that NSSS setpoints may not conform to the criteria and bases stated in the safety analysis report. In the event that this deficiency had remained uncorrected, the safe operations of the plant could have been adversely affected.

CORRECTIVE ACTION

The Statistical Setpoint Study will be revised by Westinghouse to include M&TE inaccuracy. Setpoints will be revised as necessary, based on the results of this revised Statistical Setpoint Study, to provide adequate margin between these setpoints and the appropriate Safety Limits. To prevent recurrence of this deficiency, a design basis document (DBD) will be issued to control setpoint revisions using the methodology specified in the Westinghouse study. This DBD will be issued upon the completion of Westinghouse activities.

Very truly yours,

Ml Counsil

W. G. Counsil

HAM/grr

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