

ENCLOSURE

SEQUOYAH NUCLEAR PLANT UNITS 1 AND 2
TENSILE ANCHOR CAPACITIES LOWER THAN ASSUMED IN DESIGN ALLOWABLES
NCR CEB 79-5
10 CFR 50.55(e)
FINAL REPORT

Description of Deficiency

Progressive cracking of the heat affected zone of welded stud anchors in flexible plate connections has occurred in TVA general research and development program tests. This results in lower tensile anchor capacities than assumed in establishing design allowables.

Safety Implications Statements

Based on the results and conclusions of the testing program, a review of welded anchorages found the anchorages were adequate and would perform as designed under design loadings. Therefore, had the deficiency gone uncorrected, it would not have adversely affected plant safety.

Corrective Action

When this problem was discovered, a testing program was initiated to qualify the effect of plate flexibility on stud capabilities to withstand design loadings. The results of the tests are contained in CEB Report 79-18 (Attachment 1). Based on the results of this report, guidelines were provided to evaluate and qualify the welded stud anchorages at Sequoyah Nuclear Plant (Attachment 2). A review of anchorages in safety applications was conducted in accordance with these recommendations and guidelines. This review determined the anchorages were adequate.

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