



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

SEQUOYAH NUCLEAR POWER PLANT UNITS 1 & 2
SAFETY EVALUATION REPORT FOR EMPLOYEE CONCERNS
ELEMENT REPORT 218.7(B), REVISION 2
"PIPE STRESS CALCULATIONS ACCEPTANCE CRITERIA
FOR OVERLAP AREAS OF CALCULATIONS"

I. Subject

Category: Engineering (20000)
Subcategory: Pipe Stress Calculations (21800)
Element: Acceptance Criteria for Overlap Areas of Calculations (21807)
Concern: IN-85-039-003

The basis for Element Report 218.7(B), Revision 2 is Employee Concern IN-85-039-003 which questions the consistency of the use of piping analysis overlap modeling techniques used for alternately analyzed piping at Watts Barr.

II. Summary of Issues

The Employee Concerns Task Group (ECTG) report identified the following two issues from the employee concern:

- a. There was no consistent policy on what constituted an acceptable lapped region at alternate analysis boundaries.
- b. The methods actually implemented interfacing alternate analysis problems may not have been sufficient.

III. Evaluation

A technical review of Employee Concerns Element Report 218.7(B), Revision 2 was performed by NCT Engineering, Inc. under NRC Contract No. 05-86-156. The results of this review are summarized in the attached NCT technical evaluation report dated November 30, 1987 on Employee Concerns Element Report 218.7(B), Revision 2.

Element Report 218.7(B), Revision 2 found that the employee concern was valid for the issue of TVA's implementation of overlap criteria at Sequoyah. TVA proposed corrective actions to address the finding in the ECTG report. The implementation of TVA's corrective actions, as modified to address ECTG comments, was found to be acceptable in an ECTG closeout verification memorandum dated July 30, 1987. The NCT review of Element Report 218.7(B), Revision 2 and TVA's corrective actions found that TVA's review of the issues were acceptable. The staff concurs with the conclusions presented in the NCT technical evaluation report.

The NCT technical evaluation report identified one open issue. TVA's evaluation of Nonconformance Report No. SQNCER8303 identified 16 rigorous/alternate boundaries that were found to be unacceptable and required further review. TVA's proposed resolution of these 16 interface problems is to address these problems in the post restart portion of the alternate analysis program. The alternate analysis program has been previously audited by the NRC and a separate NRC safety evaluation report on the Sequoyah Nuclear Performance Plan has addressed the technical issues that were determined to be prerestart items. The issues addressed in the prerestart portion of the alternate analysis program were based on an evaluation of alternate analysis piping deficiencies and the identification of those deficiencies which could adversely affect the piping system integrity. The prerestart evaluation included a review of rigorous/alternate boundaries for the effects of anchor movements. This review provided adequate assurance of the acceptability of rigorous/alternate interfaces for the prerestart program. The post restart portion of the alternate analysis program will review all alternately analyzed piping for conformance to the design criteria. Therefore, TVA's resolution of the 16 interface problems identified by SQNCER8303 in the post restart portion of the alternate analysis program is considered acceptable to the staff.

IV. Conclusions

Based on the review of Employee Concerns Element Report 218.7(B), Revision 2 and TVA's corrective actions, the staff concludes that Employee Concern IN-85-039-003 has been adequately addressed.