



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

SAFETY EVALUATION REPORT BY THE OFFICE OF SPECIAL PROJECTS

EMPLOYEE CONCERN ELEMENT REPORT 21304

"ELECTRICAL PROCEDURES DO NOT PROPERLY

IDENTIFY IEEE STANDARDS"

TENNESSEE VALLEY AUTHORITY

SEQUOYAH NUCLEAR POWER PLANT, UNITS 1 AND 2

DOCKET NOS. 50-327 AND 50-328

I. SUBJECT

Category: Engineering (20,000)  
Subcategory: Electrical Procedures (21,300)  
Element: Electrical Procedures Do Not Properly Identify IEEE  
Standards (21304)  
Employee Concern: IN-86-259-X11

The basis for element report 21304 Revision 0, prepared December 15, 1986, is a Watts Bar employee concern stating, "If TVA electrical procedures do not include IEEE standard requirements or their equivalent, numerous problems can result."

II. SUMMARY OF ISSUE

TVA reviewed this concern for applicability to Sequoyah. A TVA review group studied this concern and found that the TVA presentation of electrical information may not always be effective but their review found that electrical standards and requirements have been effectively implemented in Sequoyah electrical designs.

III. EVALUATION

NRC and its consultant, SAIC, reviewed the employee concern. This concern and a similar concern element 21302 entitled, "Inadequate Electrical Testing, Planning and Engineering Participation" were the subject of the February 10, 1987 meeting in the TVA Bethesda offices. Additionally, employee concerns 21301 and 21303 regarding the conduct of electrical calculations and inadequate electrical standards and guides are also related to this concern. In response to the staff's concern expressed in the February 10, 1987 meeting, TVA submitted additional information in their letter of March 19, 1987. In this submittal, TVA demonstrated that the requirements of IEEE Standards 308-1971 and IEEE Standard 317-1971 have been included for the Auxiliary Feedwater System. Based on this, TVA has concluded that the requirements of IEEE Standards have been adequately reflected in the design criteria, guides, standards and specifications.

During the recent November 30, 1987 NRC audit, NRC and SAIC reviewed the adequacy of the auxiliary feedwater system. Specifically, electrical and systems operational and preoperational test data were reviewed and system performance assessed and was acceptable to the staff.

#### IV. CONCLUSION

Based on our review of electrical and instrumentation calculations, the auxiliary feedwater system operational performance data, and the similar reviews of electrical adequacy and electrical standards in employee concerns 21301, 21302 and 21303, we can conclude that while some aspects of electrical testing and planning were poorly documented, the recent TVA reanalyses and the operational data show that the electrical design areas appear to be adequately designed and the operational problems are normal and minor. Therefore, this concern is considered to be satisfactorily resolved for Sequoyah.