



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

SAFETY EVALUATION REPORT BY OFFICE OF SPECIAL PROJECTS

EMPLOYEE CONCERN ELEMENT REPORT 24104

"AMPHENOL CONNECTORS"

TENNESSEE VALLEY AUTHORITY

SEQUOYAH NUCLEAR POWER PLANT, UNITS 1 AND 2

DOCKET NOS. 50-327/328

I. SUBJECT

Category: Engineering (20,000)  
Subcategory: Cable Termination and Splices (24,100)  
Element: Amphenol Connectors (24104)  
Employee Concern: BMP-85-001

Element Report 24104, Revision 0, prepared October 16, 1986, involves an employee concern which stated, "Installation method of Amphenol connectors on actuators of standby diesel generators could contribute to unreliable operation of the diesels."

II. SUMMARY OF ISSUE

TVA reviewed this employee concern and concluded that this was a Sequoyah concern but that the problem Amphenol connectors had already been replaced. Therefore, TVA considered this matter to be resolved.

III. EVALUATION

NRC and its consultant, SAIC, reviewed the employee concern and the TVA evaluation. A request for additional information (RAI) was sent to TVA in order to better understand the employee concern and the TVA corrective action. Specifically, the RAI requested a problem description for the "old" Amphenol connector, a description of how the new connectors resolve the problem and verification or confirmation of corrective action by TVA.

The TVA response described the original problem as a connectors thread mismatch which resulted from the connector vendor's use of national pipe thread on the conduit fitting which mated with the machine threaded Amphenol connectors. The thread mismatch damaged the connection after several assembly disconnections. To resolve this problem, TVA installed an adapter to correct the thread mating

and provided new wiring harnesses to replace the damaged connectors. TVA additionally provided a chronology of events for the Amphenol connector problem starting with the generation of a potential reportable occurrence through new cable harness and connectors installation and testing.

IV. CONCLUSION

The NRC staff concludes that the concern regarding Amphenol connectors was a valid concern and that TVA's investigation, evaluation and corrective actions resolve the employee concern.