

ENCLOSURE

SEQUOYAH NUCLEAR PLANT UNIT 2  
SAFETY-RELATED CABLE INSIDE CONTAINMENT NOT QUALIFIED  
NCR SQN QEB 8002  
10 CFR 50.55(e)  
FIRST INTERIM REPORT

Description of Deficiency

This deficiency was discovered during a QA review of ECN's by the Quality Engineering Branch in TVA's Division of Engineering Design. The higher radiation levels inside containment following a loss-of-coolant-accident (LOCA) were discovered during a verification of radiation levels inside containment for an FSAR table.

The deficiency is that exposed portions of cables to safety-related equipment (i.e., equipment that must function during and after an accident) inside containment may not be environmentally qualified for the higher radiation dose levels recently calculated to exist inside containment. Cable that fall into this category include cable runs between penetrations and conduit and cable between terminal boxes and reactor coolant system RTD's required for post-accident monitoring.

Other safety-related cable inside containment may not be affected by this deficiency because it is contained within conduit which may be sufficient to shield the cable from beta radiation. The new radiation dose recently calculated is principally beta ( $4.0 \times 10^8$  RADS) of a total dose of  $4.7 \times 10^8$  RADS). The radiation qualification of cable inside conduit is still being investigated.

This same deficiency also extends to Watts Bar Nuclear Plant and is being reported in Nonconformance Report WBN QEB 8001.

Interim Progress

TVA has investigated the extent of this deficiency and has found that the only exposed, safety-related cable inside containment is (1) between the terminal boxes and the reactor coolant system (RCS) RTD's (which are required for post-accident monitoring) and (2) adjacent to the containment penetrations where the cables enter the containment up to the point that those cables enter their respective conduits.

TVA will correct the exposed cable between the RCS RTD's and their respective terminal boxes by running these cables in conduit which have been determined to provide sufficient shielding so that the cables' qualification will remain valid. Investigation will continue to verify the qualification of safety-related cable inside conduit.

However, the action to correct the exposed cables adjacent to the containment penetrations has not yet been determined. Once this corrective action has been finalized, it will be forwarded in a subsequent report on this deficiency. Likewise, TVA will submit a schedule for completion of these corrective steps.