

ENCLOSURE

WATTS BAR NUCLEAR PLANT UNITS 1 AND 2
CABLE TERMINATIONS IN JUNCTION BOXES INSIDE CONTAINMENT

NCR EEB 79-8
10 CFR 50.55(e)
SUPPLEMENTAL RESPONSE

In the corrective action to the subject nonconformances, TVA committed to replace terminations in junction boxes inside containment with splices for Class IE circuits required to achieve and maintain safe shutdown following a LOCA or main steamline break. An exception to this commitment has been identified. It is found that terminations are preferable to splices for resistance temperature detectors (RTD's). The RTD's are furnished with a calibrated length of cable which interfaces with field wiring on terminal blocks. The terminations are needed to accommodate calibration checkpoints and to facilitate maintenance or replacement.

The RTD terminations are housed in gasketed junction boxes, and cable entries into the boxes are sealed with room temperature vulcanizing (RTV) silicone rubber to restrict moisture entry and chemical exposure to the terminations. To further ensure that the field connections are protected for post-LOCA conditions, the RTD terminations have been coated with Dow Corning 3140 RTV Silicon Coating. This protective coating has a temperature range of -65°C to 250°C and is effective after a radiation exposure of 100 megarads. It is also electrically nonconductive, has good insulation properties, and provides protection against corrosion.

TVA considers this installation to be an acceptable and preferable alternative to splices for the RTD's.

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