

ALVIN W. VOGTLE NUCLEAR PLANT

GEORGIA POWER COMPANY

INTERIM REPORT

SUBJECT: Embedded Plate Assemblies

Description of Embedded Plate Assembly:

An embedded plate assembly consists of a plate of specified dimensions. Heavy hexagon nuts are welded on the side of the plate to be embedded. These nuts will be called "plate" nuts. A  $\frac{1}{2}$ " observation hole is drilled through the plate in alignment with the center line of the nut. A bolt is threaded through the plate nut, until the bolt is fully engaged. Full engagement is defined by subtracting the plate thickness from the measured distance from the front of the plate to the end of the engaged bolt. To be fully engaged, this value should be zero. Additionally, a washer and another nut (called "end" nut) are tack welded to the opposite end of the bolt. Bending of the bolts is permitted to avoid rebar interference.

Origin and Description of the Problem:

In November 1978, Georgia Power Company personnel identified embed assemblies not fabricated or installed in accordance to the design drawing. Problems identified with the embeds are as follows:

- (A) All of the plate nuts were standard hexagon nuts instead of heavy hexagon nuts.
- (B) Some of the bolts for a given embed plate assembly were not fully engaged with the plate nut.
- (C) Some of the bolts were not tack welded to the plate nut.
- (D) Some of the bolts in a given embed plate assembly did not have washers.
- (E) Some of the bolts having washers did not have washers tack welded to either the bolt or the end nut.
- (F) Some end nuts were not tack welded to the corresponding bolt.
- (G) Some bolts may have been bent in excess of the design drawing specified thirty degrees ( $30^{\circ}$ ).
- (H) Some bolts may be cracked due to excessive bending (Item G).

The assemblies are located in the Auxiliary Building and the Control Building.

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Design Functions:

The embed assemblies are designed to support cable tray, pipe systems, and other items.

Technical Evaluation:

A reevaluation of the affected assemblies is in progress. This reevaluation will account for the discrepancies listed above.

If, after evaluation, the problem is determined to be a reportable significant deficiency in accordance with 10CFR50.55(e), a final report addressing the results of evaluation, corrective procedure, and remedial action will be transmitted by March 1, 1979.