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Vogtle Project

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United States Nuclear Regulatory Commission
Office of Inspection and Enforcement
Region II - Suite 3100
101 Marietta Street
Atlanta, Georgia 30303

File: X7BG03-M29
Log: GN-186

Attention: Mr. James P. O'Reilly

Reference: Vogtle Electric Generating Plant - Units 1 and 2
50-424, 50-425; Starting Air Valves, Diesel Generators

Gentlemen:

On July 7, 1982, Georgia Power Company reported a potential deficiency concerning the starting air valve assembly on the standby diesel generators to Mr. Virgil Brownlee. Georgia Power Company has concluded this condition is reportable as a significant deficiency and a substantial safety hazard. Enclosed is our report for this item.

This response contains no proprietary information and may be placed in the NRC Public Document Room upon receipt.

Very truly yours,

D. O. Foster
Project General Manager

DOF/CWH/tlp

Enclosure

xc: U. S. Nuclear Regulatory Commission
Attn: Victor J. Stello, Jr., Director
Office of Inspection and Enforcement
Washington, D.C. 20555

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Evaluation for a Significant Deficiency

Evaluation for a Substantial Safety Hazard

Introduction: On July 7, 1982, Mr. C. W. Hayes, Vogtle Project QA Manager, informed Mr. Virgil Brownlee on the NRC of a potential deficiency concerning DeLaval diesel generators.

Background: On May 13, 1982, Transamerica DeLaval notified the NRC of a defect in components of DSRV or DSR diesel generators. A potential problem exists with the starting air valve assembly that could result in engine non-availability. Plant Vogtle was identified as a site where this defect could exist.

The potential defect is related to the length of the cap-screw which holds the starting air valve assembly in the cylinder head. If the capscrew "bottoms" in the tapped hole in the cylinder head before the assembly is properly seated, the torque wrench reading would be misleading and the assembly could fail.

The starting air valve assembly was manufactured and installed in the cylinder head by Transamerica DeLaval. Field inspection at the Vogtle site has confirmed the use of deficient capscrews.

Analysis of Safety Implications: The standby diesel generator provides an emergency source of onsite power to safety-related equipment to ensure its' continued operation following an accident occurring coincident with a loss of offsite power. Because the design and fabrication of the diesel generators for each unit is the same, a common made failure could be postulated in the starting air valve assembly of both engines due to improperly sized capscrews. The result of the common made failure is a loss of power to both trains of the emergency core cooling system (ECCS) and most of the emergency safety features (ESF) equipment.

Conclusions: This condition represents a deficiency found in design and construction, which, were it to have remained uncorrected could have affected adversely the safety of operations of the nuclear power plant and any time throughout the expected lifetime of the plant.

Due to the problems presented by the potential failure of diesel generators, this condition also represents a significant deficiency in the final design such that the design of the deisel generators does not conform to the criteria and bases stated in the safety analysis report.

Additionally, this condition has been reported to the NRC as a Part 10CFR21 by Transamerica DeLaval since it could cause a loss of redundancy and required safety functions may not be able to be performed.

Corrective Action: In their report to the NRC, Transamerica DeLaval describes two possible corrective actions. These are:

- (1) Remove the existing capscrews; cut $\frac{1}{4}$ " off the screw, reinstall the shortened screw.
- (2) Remove the existing capscrew and replace with 2-3/4" capscrew available through Transamerica DeLaval.

The use of shortened screws provides adequate thread engagement while eliminating the possibility of bottoming in the tapped hole.

Corrective action will be verified at the Vogtle site by E. D. Groover and will be completed by 11/30/82.

Conclusion: This condition represents a reportable significant deficiency and a Part 10CFR21. Because Transamerica DeLaval has previously reported this condition to the NRC as a Part 10CFR21,

Georgia Power Company is reporting this condition as a Part
10CFR50.55(e) (significant deficiency.)