

ENCLOSURE

WATTS BAR NUCLEAR PLANT UNITS 1 AND 2
PRESSURIZER SAFETY AND RELIEF LINE
BLOWDOWN ANALYSIS PERFORMED INCORRECTLY
NCR CEB 79-26
10 CFR 50.55(e)
FIRST INTERIM REPORT

Description of Condition

In performing the final design review of the pressurizer safety and relief line blowdown analysis, EDS Nuclear, Incorporated (EDS) discovered an error in the structural dynamics portion of the shock load analysis.

Both sequential and simultaneous modes of discharge for the safety/relief valves are evaluated in this analysis. A numbered set of forcing functions for each mode are developed for input into the computer structural dynamics analysis. Since the computer code will handle only a specific number of forcing functions, a set of insignificant forcing functions from the simultaneous mode were eliminated from the complete analysis. By mistake, the identical numbered set of forcing functions were eliminated from the sequential mode analysis although this set contained significant forces for the sequential mode. This incorrect analysis could result in a break of the safety and relief line(s) because of the loadings which would result from sequential lifting of the safety and relief valves.

Corrective Action

EDS has performed a reanalysis using the correct sets of forcing functions, and the reanalysis revealed that ten supports have to be redesigned, one support will be relocated and one support will have to be added per unit. Also, pressurizer nozzle loads at specific locations and directions were increased and have been forwarded to Westinghouse for their review and approval. Final corrective action will be determined pending the results of the Westinghouse review.