



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

December 2, 1992

Docket No. 52-001

Mr. Patrick W. Marriott, Manager
Licensing & Consulting Services
GE Nuclear Energy
175 Curthner Avenue
San Jose, California 95125

Dear Mr. Marriott:

SUBJECT: PRELIMINARY EVALUATION OF THE RESOLUTION OF THE INTERSYSTEM LOSS-OF-COOLANT ACCIDENT (ISLOCA) ISSUE FOR THE ADVANCED BOILING WATER REACTOR (ABWR) - DESIGN PRESSURE FOR LOW-PRESSURE SYSTEMS

In SECY-90-016, "Evolutionary Light Water Reactor (LWR) Certification Issues and Their Relationship to Current Regulatory Requirements," the Nuclear Regulatory Commission (NRC) staff resolved the ISLOCA issue for advanced light water reactor plants by requiring that low-pressure piping systems that interface with the reactor coolant pressure boundary be designed to withstand full reactor coolant system (RCS) pressure to the extent practicable. The General Electric Company (GE) provided a proposed implementation of the issue resolution for the ABWR in a letter from Jack Fox (GE) to Chet Poslusny (NRC) dated October 8, 1992.

The staff in the Civil Engineering and Geosciences Branch of the Division of Engineering has completed its evaluation of the GE proposal for implementing the ISLOCA issue resolution for the ABWR. Specifically, the staff has evaluated the minimum pressure for which low-pressure systems should be designed to ensure reasonable protection against burst failure should the low-pressure system be subjected to full RCS pressure. The staff finds that the GE proposal, as modified in the safety evaluation, provides an acceptable basis for concluding that the low-pressure piping systems are capable of withstanding the consequences of an ISLOCA event. However, GE needs to revise its standard safety analysis report and provide Tier 1 commitments and inspections, tests, analyses, and acceptance criteria to reach final closure of the issue.

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Mr. Patrick W. Marriott

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Enclosed is the evaluation. Please note that the reactor systems evaluation is not completed and requires additional GE information as discussed in a recent telecon with GE staff.

Sincerely,

(Original signed by)

Chester Poslusny, Project Manager
Standardization Project Directorate
Associate Directorate for Advanced Reactors
and License Renewal
Office of Nuclear Reactor Regulation

Enclosure:
Staff Preliminary
Evaluation

cc w/enclosure:
See next page

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