



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

December 23, 1992

*Docket File*

Docket No. 52-001

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

Dear Mr. Marriott:

SUBJECT: STATUS OF GE NUCLEAR ENERGY (GE) ADVANCED BOILING WATER REACTOR  
(ABWR) SHUTDOWN RISK DRAFT FINAL SAFETY EVALUATION REPORT (DFSER)

The Reactor Systems Branch (SRXB) is currently finalizing its safety evaluation report on the subject identified above. The reviewers have identified some potential open issues below, which require early dialogue with GE.

1. Reliability of power available for reactor water cleanup (RWCU) system to measure coolant temperatures. This open item regards the method used to measure water temperature at the residual heat removal (RHR) pump discharge and the RWCU system suction lines, in case of loss of all power.
2. Adequacy of the decay heat removal (DHR) system parameters monitored by the ABWR instrumentation system. This open item regards the potential applicability of the GL 88-17's recommendations for RHR system indications (e.g., pump noise, pump suction pressure, motor current, alarms, etc.).
3. GE operating procedure guidelines for conducting outage and planning.
4. Shutdown technical specifications for the ABWR.
5. Potential impact on inflatable seals due to temperature increase from loss of DHR cooling during reactor internal pumps replacement or maintenance.
6. Discussion of a director reactor pressure vessel boiling to the containment as an acceptable alternate decay heat removal method.
7. Impact on safety-related equipment from heavy loads and fuel handling in the containment during the refueling process.

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In addition, the reviewers have identified two confirmatory items:

1. Modification of a high temperature isolation feature to only isolate and bypass the filter demineralizers rather than the entire RWCU. This confirmatory item regards the potential degrading of the RWCU system if the coolant inlet temperature to the iron exchanger exceeds the resin's design temperature.
2. Modification of a manually-operated RWCU bottom drain suction valve to remote/manual air-operated valve function. This confirmatory item regards the diverse capability for operators to isolate line breaks from the control room.

Please provide this list to cognizant GE staff and contact me during the week of January 4, 1993, so that I can arrange a preliminary phone call and meeting, if necessary, to quickly resolve these concerns. I still expect evaluation inputs on shutdown risk from the Containment Systems and Severe Accident, Plant Systems, and Probabilistic Safety Assessment Branches in the near future. I will provide feedback to you next month if additional open items are identified.

Sincerely,

(Original signed by)

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

cc: See next page

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