



GE Energy

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MFN 06-418

Docket No. 52-010

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U.S. Nuclear Regulatory Commission  
Document Control Desk  
Washington, D.C. 20555-0001

Subject: **Response to Portion of NRC Request for Additional Information  
Letter No. 69 – Acceptance Criteria for Infrequent Events – RAI  
Numbers 15.0-17**

Enclosure 1 contains GE's response to the subject NRC RAI transmitted via the  
Reference 1 letter.

If you have any questions about the information provided here, please let me know.

Sincerely,

A handwritten signature in cursive script that reads "Kathy Sedney for".

David H. Hinds  
Manager, ESBWR

Handwritten initials "D068" in a stylized, cursive font.

Reference:

1. MFN 06-381, Letter from U.S. Nuclear Regulatory Commission to David Hinds, *Request for Additional Information Letter No. 69 Related to ESBWR Design Certification Application*, October 11, 2006

Enclosure:

1. MFN 06-418 – Response to Portion of NRC Request for Additional Information Letter No. 69 – Acceptance Criteria for Infrequent Events – RAI Number 15.0-17

cc: AE Cabbage USNRC (with enclosures)  
GB Stramback GE/San Jose (with enclosures)  
eDRF 0058-8864

**ENCLOSURE 1**

**MFN 06-418**

**Response to Portion of NRC Request for  
Additional Information Letter No. 69  
Related to ESBWR Design Certification Application  
Acceptance Criteria for Infrequent Events  
RAI Number 15.0-17**

**NRC RAI 15.0-17:**

*Standard Review Plan (SRP) Section 15.2.8.II.A.1, Revision 1, July 1981, states that pressure in the reactor coolant and main steam systems should be maintained below 110% of the design pressures [ASME Boiler and Pressure Vessel Code, Section III, Service Level B] for low probability events and below 120% of the design pressures [ASME Boiler and Pressure Vessel Code, Section III, Service Level C] for very low probability events such as double-ended guillotine breaks.*

*DCD Tier 2, Rev. 1, Table 15.0-5, Acceptance Criteria for Infrequent Events, states that "pressures in the reactor coolant and main steam systems shall be maintained below the ASME Service Level C limit, which corresponds to 120% of design pressure."*

*Revise DCD Tier 2, Table 15.0-5 consistent with the SRP acceptance criteria for low probability events that the pressure in the reactor coolant and main steam systems should be maintained below 110 percent (Service Level B) of the design pressures.*

**Response to RAI 15.0-17:**

Standard Review Plan (SRP) Section 15.2.8, Revision 1, July 1981 is titled "FEEDWATER SYSTEM PIPE BREAKS INSIDE AND OUTSIDE CONTAINMENT (PWR)," and thus, is not applicable to BWRs.

Determination criteria for "low probability events" and "very low probability events" are not provided in the SRPs or the 10 CFRs, and thus, the ESBWR event types vs. Service Levels were compared to those of the operating plants and the ABWR. For the operating BWRs, the ABWR and the ESBWR, AOs are considered to be (the low probability) events that apply ASME Boiler and Pressure Vessel Code, Section III, Service Level B, and the infrequent incidents/events. ATWS and accidents are considered to be (the very low probability) events that apply ASME Boiler and Pressure Vessel Code, Section III, Service Level C/D. Therefore, the ESBWR Service Level C acceptance criterion for infrequent events is consistent with past and existing BWR licensing bases.

No DCD change results from this RAI response.