



**HITACHI**

**GE Hitachi Nuclear Energy**

**Richard E. Kingston**  
Vice President, ESBWR Licensing

P.O. Box 780  
3901 Castle Hayne Road, M/C A-55  
Wilmington, NC 28402 USA

T 910.675.6192  
F 910.362.6192  
rick.kingston@ge.com

MFN 08-773

Docket No. 52-010

October 8, 2008

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. 231 Related to the ESBWR Design Certification – SRP  
5.4.6 Applicability – RAI Number 5.4-62**

The purpose of this letter is to submit the GE Hitachi Nuclear Energy (GEH) responses to the U.S. Nuclear Regulatory Commission (NRC) Request for Additional Information (RAI) sent by NRC letter No. 231 (Reference 1). GEH response to RAI Number 5.4-62 is addressed in Enclosure 1. DCD markups associated with this response is provided in Enclosure 2.

If you have any questions or require additional information, please contact me.

Sincerely,

Richard E. Kingston  
Vice President, ESBWR Licensing

DO68  
NRC

Reference:

1. MFN 08-628, Letter from U.S. Nuclear Regulatory Commission to Robert E. Brown, GEH, *Request For Additional Information Letter No. 231 Related To ESBWR Design Certification Application*, dated August 5, 2008

Enclosures:

1. Response to Portion of NRC Request for Additional Information Letter No. 231 Related to ESBWR Design Certification Application – SRP 5.4.6 Applicability – RAI Number 5.4-62
2. Response to Portion of NRC Request for Additional Information Letter No. 231 Related to ESBWR Design Certification Application – SRP 5.4.6 Applicability – RAI Number 5.4-62 – DCD Markups

cc: AE Cubbage      USNRC (with enclosures)  
RE Brown      GEH/Wilmington (with enclosures)  
DH Hinds      GEH/Wilmington (with enclosures)  
eDRFs      0000-0091-6126

**Enclosure 1**

**MFN 08-773**

**Response to Portion of NRC Request for  
Additional Information Letter No. 231  
Related to ESBWR Design Certification Application**

**SRP 5.4.6 Applicability**

**RAI Number 5.4-62**

**NRC RAI 5.4-62:**

*In DCD Tier 2, Table 1.9-5, Summary of Differences from SRP Section 5, SRP Section 5.4.6 is shown as 'Not Applicable to ESBWR', but in DCD Tier 2, Table 1.9-20, NRC SRP and BTP Applicability, Section 5.4.6 is shown as 'Applicable to ESBWR'. SRP 5.4.6 Rev.4 (1996) is applicable to isolation condenser system (ICS) and hence Table 1.9-5 needs to be corrected to show that the SRP 5.4.6 is applicable to ESBWR.*

**GEH Response:**

DCD Tier 2, Table 1.9-5 will be changed to indicate SRP 5.4.6 is applicable to the ESBWR as requested.

**DCD Impact:**

DCD Tier 2, Table 1.9-5 will be revised as noted on the attached markup.

**Table 1.9-5**  
**Summary of Differences from SRP Section 5**

SRP Section	Specific SRP Acceptance Criteria	Summary Description of Difference	Subsection Where Discussed
5.2.1.1		None	
5.2.1.2		None	
5.2.2		None	
5.2.3	II.3.b.(3)—Reg Guide 1.71, Welding Qualification for Areas of Limited Accessibility.	Alternate position employed.	5.2.3.4
5.2.4	II.1—Inspection of Class 1 pressure-containing components.	Some welds inaccessible for volumetric examination.	5.2.4.2
5.2.5		None	
5.3.1		None	
5.3.2		None	
5.3.3		None	
5.4.1.1		Not applicable to the ESBWR	
5.4.2.1		Not applicable to the ESBWR	
5.4.2.2		Not applicable to the ESBWR	
5.4.6	<u>II.1, II.4, II.5, II.6, II.7a, b, c &amp; f, II.8, II.9 and II.10</u>  <u>II.2, II.3 and II.7d &amp; e</u>	<del>Not applicable to the ESBWRAs</del> <u>applicable to a passive-design isolation condenser system (ICS) in place of an active-design reactor core isolation cooling (RCIC) system.</u>  <u>Not applicable to ESBWR</u>	<u>5.4.6</u>
5.4.7	Except of RCPB portions for structural integrity, none of the criteria apply.	No safety-related RHR system, the ESBWR uses a nonsafety-related RWCU/SDC system	
5.4.8		None	