



**HITACHI**

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MFN 09-199

Docket No. 52-010

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U.S. Nuclear Regulatory Commission  
11555 Rockville Pike  
Document Control Desk  
Rockville, MD 20852

Subject: **Response to Portion of NRC Request for Additional Information  
Letter No. 310 Related to ESBWR Design Certification Application  
– Electrical Power - RAI Numbers 8.3-66**

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. 310, dated February 26, 2009 (Reference 1).

GEH response to RAI 8.3-66 is provided in Enclosure 1. Enclosure 2 provides any affected DCD Sections.

Sincerely,

A handwritten signature in black ink that reads "Richard E. Kingston".

Richard E. Kingston  
Vice President, ESBWR Licensing

Reference:

1. MFN 09-151 - Letter from U.S. Nuclear Regulatory Commission to Robert E. Brown, GEH, *Request For Additional Information Letter No. 310 Related To ESBWR Design Certification Application*, dated February 26, 2009

Enclosure:

1. MFN 09-199 -Response to Portion of NRC Request for Additional Information Letter No. 310 Related to ESBWR Design Certification Application – Electrical Power - RAI Number 8.3-66.
2. MFN 09-199 -Response to Portion of NRC Request for Additional Information Letter No. 310 Related to ESBWR Design Certification Application – Electrical Power - RAI Number 8.3-66 DCD Markup.

cc: AE Cabbage USNRC (with enclosure)  
JG Head GEH/Wilmington (with enclosure)  
DH Hinds GEH/Wilmington (with enclosure)  
RM Wachowiak GEH/Wilmington (with enclosure)

EDRF Section 0000-0098-6584 (RAI 8.3-66)

**MFN 09-199**

**Enclosure 1**

**Response to Portion of NRC Request for Additional**

**Information Letter No. 310 Related to ESBWR**

**Design Certification Application**

**Electrical Power**

**RAI 8.3-66**

**NRC RAI 8.3-66**

*NRC IE Bulletin 82-04, "Deficiency in Primary Containment Electrical Penetration Assemblies," discusses deficiencies with the use of hard epoxy in containment electrical penetration assemblies manufactured by the Bunker Ramo Company. In DCD Tier 2, Chapter 1, Table 1C-2, "Operating Experience Review Results Summary – IE Bulletin," GEH indicated that this item is addressed in Section 8.3.4.7. Section 8.3.4.7 does not exist. Provide a revised response to this item.*

**GEH Response**

IE Bulletin 82-04 only applies to a specific equipment supplier that is no longer selling primary containment electrical penetration assemblies. ESBWR primary containment electrical penetration assemblies are qualified to IEEE 317 requirements in accordance with Regulatory Guide 1.63.

The DCD Table 1C-2 listing for IE Bulletin 82-04 will be updated to include the above discussion and a reference to DCD Tier 2 Subsection 3.11.1.1, which identifies IEEE 317 and Regulatory Guide 1.63 as applicable to the qualification of electrical equipment.

**DCD Impact**

DCD Tier 2 Table 1C-2 will be revised in Revision 6 as noted in the attached markup.

**MFN 09-199**

**Enclosure 2**

**Response to Portion of NRC Request for Additional**

**Information Letter No. 310 Related to ESBWR**

**Design Certification Application**

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**RAI 8.3-66 DCD Markup**

**Table 1C-2**  
**Operating Experience Review Results Summary – IE Bulletins**

No.	Issue Date	Title	Evaluation Result or Topic's Tier 2 Location(s)
82-04	12/3/82	Deficiencies in Primary Containment Electrical Penetration Assemblies	<a href="#">Applies to a specific equipment supplier that is no longer selling primary containment electrical penetration assemblies. ESBWR primary containment electrical penetration assemblies are qualified to IEEE 317 requirements in accordance with Regulatory Guide 1.63. See Subsection 3.11.1.1, <del>Subsection 8.3.4.7</del></a>
83-06	7/22/83	Non-Conforming Materials Supplied by Tube-Line Corp.	Not applicable, vendor supply issue
84-01	2/3/84	Cracks in Boiling Water Reactor Mark I Containment Vent Headers	Not applicable to the ESBWR containment design
84-03	8/24/84	Refueling Cavity Water Seal	The ESBWR utilizes permanently installed flexible bellows between the RPV and the refueling cavity.
85-03	11/15/85	Motor-Operated Valve Common Mode Failures During Plant Transients Due to Improper Switch Settings	Subsection 3.9.6.1
85-03, Supp 1	4/27/88	Motor-Operated Valve Common Mode Failure During Plant Transients Due to Improper Switch Settings Past Related Correspondence: IE Bulletin 85-03, IE Notice 86-29, and IE Notice 87-01	Subsection 3.9.6.1
86-01	5/23/86	Minimum Flow Logic Problems That Could Disable RHR Pumps	Not Applicable. The ESBWR does not have safety-related RHR pumps
86-03	10/8/86	Potential Failure of Multiple ECCS Pumps Due to Single Failure of Air-Operated Valve in Minimum Flow Recirculation Line	Not Applicable. The ESBWR does not have ECCS pumps
87-01	7/9/87	Thinning of Pipe Walls in Nuclear Power Plants Past Related Correspondence: IE Notice 88-17	Subsection 6.6.7