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MFN 08-573

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. 194 Related to ESBWR Design Certification Application ESBWR RAI Number 22.5-21, Supplement 1**

The purpose of this letter is to submit the GE Hitachi Nuclear Energy (GEH) response to the U.S. Nuclear Regulatory Commission (NRC) Request for Additional Information (RAI) Letter Number 194, dated May 13, 2008 (Reference 1).

The GEH response to RAI Number 22.5-21, Supplement 1 is in Enclosure 1.

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

Sincerely,

Richard E. Kingston  
Vice President, ESBWR Licensing

DOB  
NR

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Reference:

1. MFN 08-477, Letter from U.S. Nuclear Regulatory Commission to Robert E. Brown, GEH, *Request For Additional Information Letter No. 194 Related To ESBWR Design Certification Application*, dated May 13, 2008.

Enclosure:

1. Response to Portion of NRC Request for Additional Information Letter No. 194 Related to ESBWR Design Certification Application Regulatory Treatment of Non-Safety Systems (RTNSS) RAI Number 22.5-21, Supplement 1

cc: AE Cabbage USNRC (with enclosure)  
GB Stramback GEH/San Jose (with enclosure)  
RE Brown GEH/Wilmington (with enclosure)  
DH Hinds GEH/Wilmington (with enclosure)  
eDRF 0000-0087-8300

**Enclosure 1**

**MFN 08-573**

**Response to Portion of NRC Request for  
Additional Information Letter No. 194  
Related to ESBWR Design Certification Application  
Regulatory Treatment of Non-Safety Systems (RTNSS)  
RAI Number 22.5-21, Supplement 1**

**NRC RAI 22.5-21 S01**

*Question Summary: Identify the seismic design criteria applicable to RTNSS SSCs meeting Criterion B and designated as Regulatory Oversight Support (DCD Section 19A.8.3)*

*Full Text:*

*The staff considers GEH's response to RAI 22.5-21 in Letter No. MFN 08-336 incomplete, because it did not address seismic design. The first sentence in DCD Tier 2, Rev. 4 Section 19A.8.3 states that all systems that meet RTNSS Criterion B require augmented design standards. The following sentence excludes more than half of these systems based on their categorization as Regulatory Oversight "Support". Irrespective of the regulatory oversight level, the fundamental question here is: Are these systems required to function following an accident? And if so, what design standards are used to achieve that goal?*

*The staff requests the following information to be provided in the DCD:*

- 1. Confirm that the augmented seismic design standards in DCD Section 19A.8.3 is applicable to all RTNSS systems and components that meet Criterion B including those designated as Regulatory Oversight "Support". Otherwise, describe the alternative seismic design criteria used and justify its adequacy.*
- 2. Confirm that the augmented seismic design standards in DCD Section 19A.8.3 are applicable to the non-seismic structures that house and support all RTNSS systems and components that meet Criterion B including those designated as Regulatory Oversight "Support". Otherwise, describe the alternative seismic design criteria used and justify its adequacy.*

*This RAI should not be construed as an approval of the augmented design standard proposed by GEH. This issue is still under review in other RAIs.*

**GEH Response**

Systems classified as "support" in DCD Tier 2, Revision 4 Section 19A.8.3 are Low Regulatory Oversight and thus, are not excluded from the augmented design requirements. This has been clarified in DCD Tier 2, Revision 5, specifically:

- Section 19A.8.1 clarifies that "support" systems receive Low Regulatory Oversight.
- Section 19A.8.3 clarifies that all RTNSS B systems are housed in buildings that meet the augmented design standards.

DCD Tier 2, Revision 5 includes a new table, 19A-3, which identifies all structures housing RTNSS B components, and all structures in this list are either Seismic Category I or II.

**DCD/NEDO-3201 Impact**

No DCD changes will be made in response to this RAI.

No changes to the NEDO33201 will be made in response to this RAI.