



HITACHI

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MFN 08-480

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U.S. Nuclear Regulatory Commission
Document Control Desk
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Subject: **Response to Portion of NRC Request for Additional
Information Letter No. 185 Related to ESBWR Design
Certification Application – Design of Structures, Components,
Equipment, and Systems - RAI Number 3.11-28**

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) sent by NRC letter No. 185 (Reference 1) dated April 25, 2008. GEH response to RAI Number 3.11-28 is addressed in Enclosure 1.

Should you have any questions about the information provided here, please contact me.

Sincerely,

James C. Kinsey
Vice President, ESBWR Licensing

Reference:

1. MFN 08-434, Letter from U.S. Nuclear Regulatory Commission to Robert E. Brown, *Request for Additional Information Letter No. 185 Related to the ESBWR Design Certification Application*, dated April 25, 2008

Enclosure:

1. Response to Portion of NRC Request for Additional Information Letter Nos. 185 Related to ESBWR Design Certification Application – Design of Structures, Components, Equipment, and Systems - RAI Number 3.11-28

cc:	AE Cubbage	USNRC (with enclosure)
	RE Brown	GEH/Wilmington (with enclosure)
	DH Hinds	GEH/Wilmington (with enclosure)
	GB Stramback	GEH/San Jose (with enclosure)
	eDRF	0000-0084-8885, Revision 0

Enclosure 1

MFN 08-480

**Response to Portion of NRC Request for
Additional Information Letter No. 185
Related to ESBWR Design Certification Application**

RAI Number 3.11-28

NRC RAI 3.11-28

NRC Summary:

Clarify the maximum temperature listed in Table 3H-2 through 3H-4 in Appendix 3H.

NRC Full Text:

DCD, Rev. 4, Section 3.H.3.1 states that Tables 3H-2 through 3H-4 define thermodynamic conditions for normal operating conditions for areas containing safety-related equipment. The component inside a panel located in harsh environment may be exposed to higher temperature than the ambient room temperature due to internally generated heat. Clarify that the temperatures listed in the Tables 3H-2 through 3H-4 represent the maximum temperature seen by a component inside a panel.

GEH Response

Temperatures listed in the Tables 3H-2 through 3H-4 represent the maximum normal ambient temperature at the location of the safety-related equipment.

Aging analysis and accelerated aging tests to determine qualified life identifies the service temperature, which considers sources of higher than ambient heat, such as, internally generated heat from the periods of time that safety-related equipment is energized, enclosed, collocated and adjacent heat sources as addressed in Section 3.11.3.1.

The EQ documentation includes the equipment aging analyses, tests and qualified life at the service temperature.

DCD Impact

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