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MFN 08-045

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U.S. Nuclear Regulatory Commission
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Subject: **Response to Portion of NRC Request for Additional Information Letter No. 117 Related to ESBWR Design Certification Application – Site Characteristics - RAI Numbers 2.3-13 and 2.4-33.**

Enclosure 1 contains GEH's response to the subject RAI transmitted via Reference 1.

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

Sincerely,

James C. Kinsey
Vice President, ESBWR Licensing

*DOGG
NRC*

References:

1. MFN 07-656, Letter from U.S. Nuclear Regulatory Commission to Robert E. Brown, *Request for Additional Information Letter No. 117 Related to the ESBWR Design Certification Application*, December 5, 2007.

Enclosure:

1. Response to Portion of NRC Request for Additional Information Letter No. 117 Related to ESBWR Design Certification Application – Site Characteristics - RAI Numbers 2.3-13 and 2.4-33.

cc: AE Cabbage USNRC (with enclosure)
RE Brown GEH/Wilmington (with enclosure)
LE Fennern GEH/San Jose (with enclosure)
GB Stramback GEH/San Jose (with enclosure)
eDRF 0000-0078-6958

Enclosure 1

MFN 08-045

**Response to Portion of NRC Request for
Additional Information Letter No. 117
Related to ESBWR Design Certification Application**

Site Characteristics

RAI Numbers 2.3-13 and 2.4-33

NRC RAI 2.3-13

Please expand COL Item 2.0-7-A to state that the COL applicant is to supply site-specific information in accordance with SRP 2.3.1?

GEH Response

GEH agrees to the requested expansion of the COL item statement.

DCD Impact

DCD Tier 2, Table 2.0-2, Subsections 2.3.1, will be revised as noted in the attached markup.

NRC RAI 2.4-33

Explain why DCD (Rev 4) Tier 2, subsection 2.4.4 only addresses seismically induced dam failures. Subsection 2.4.4 of the SRP does not have this limitation.

GEH Response

DCD Tier 2, Table 2.0-2, Subsection 2.4.4, will be revised to eliminate the term "seismically induced" from the description of this SRP subsection.

DCD Impact

DCD Tier 2, Table 2.0-2, Subsection 2.4.4, will be revised as noted in the attached markup.

**Table 2.0-2
Limits Imposed on Acceptance Criteria in Section II of SRP by ESBWR Design**

Subsection	Subject	ESBWR DCD Parameters, Considerations and/or Limits	COL Information
2.2.3	Evaluation of Potential Accidents	None considered in vicinity of plant.	COL applicant to identify and evaluate potential accidents emanating from those potential hazards identified in SRP 2.2.1 – 2.2.2 above, that have a probability of occurrence > 10 ⁻⁷ per year which involve: (1) missiles more energetic than the tornado missile spectrum, or (2) pressure effects in excess of the design basis tornado, or (3) explosions, or (4) fires, or (5) aircraft impacts, or (6) release of flammable vapor clouds, or (7) release of toxic chemicals. (COL Item 2.0-6-A)
2.3.1	Regional Climatology	Per Table 2.0-1.	COL applicant to supply site-specific information in accordance with SRP 2.3.1. COL applicant to determine basic speed of extreme wind for use in design of nonsafety-related structures that are not included as part of the ESBWR Standard Plant design. COL applicant to confirm or reanalyze in accordance with SRP 2.3.1. (COL Item 2.0-7-A)
2.3.2	Local Meteorology	None.	COL applicant to supply site-specific information in accordance with SRP 2.3.2. (COL Item 2.0-8-A)

Table 2.0-2

Limits Imposed on Acceptance Criteria in Section II of SRP by ESBWR Design

Subsection	Subject	ESBWR DCD Parameters, Considerations and/or Limits	COL Information
2.4.3	Probable Maximum Flood on Streams and Rivers	Probable maximum flooding level on streams and rivers does not exceed the maximum flood level defined in Table 2.0-1.	COL applicant to supply site-specific information in accordance with SRP 2.4.3. (COL Item 2.0-14-A)
2.4.4	Potential Dam Failures Seismically Induced	Potential seismically induced dam failures do not cause flooding to exceed the maximum flood level defined in Table 2.0-1.	COL applicant to supply site-specific information in accordance with SRP 2.4.4. COL applicant to demonstrate that failure of existing and potential upstream or downstream water control structures will not cause flooding to exceed 0.3 m (1 ft) below plant grade. (COL Item 2.0-15-A)
2.4.5	Probable Maximum Surge and Seiche Flooding	Probable maximum surge and seiche flooding level does not exceed the maximum flood level defined in Table 2.0-1.	COL applicant to supply site-specific information in accordance with SRP 2.4.5. (COL Item 2.0-16-A)
2.4.6	Probable Maximum Tsunami Flooding	Probable maximum tsunami flooding level does not exceed the maximum flood level defined in Table 2.0-1.	COL applicant to supply site-specific information in accordance with SRP 2.4.6. (COL Item 2.0-17-A)
2.4.7	Ice Effects	None.	COL applicant to supply site-specific information in accordance with SRP 2.4.7. (COL Item 2.0-18-A)
2.4.8	Cooling Water Canals and Reservoirs	None.	COL applicant to supply site-specific information in accordance with SRP 2.4.8. (COL Item 2.0-19-A)