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MFN 08-082

Docket No. 52-010

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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. 120 Related to ESBWR Design
Certification Application - Containment Systems -
RAI Number 6.2-164 S01**

Enclosure 1 contains the GE Hitachi Nuclear Energy (GEH) response to the subject NRC RAI originally transmitted via the Reference 1 letter and supplemented by an NRC request for clarification in Reference 2.

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

Sincerely,

R. E. Brown for

James C. Kinsey
Vice President, ESBWR Licensing

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NRD*

References:

1. MFN 07-327, Letter from U.S. Nuclear Regulatory Commission to Robert E. Brown, *Request for Additional Information Letter No. 100 Related to ESBWR Design Certification Application*, May 30, 2007
2. MFN 07-717, Letter from U.S. Nuclear Regulatory Commission to Robert E. Brown, *Request for Additional Information Letter No. 120 Related to ESBWR Design Certification Application*, December 19, 2007

Enclosure:

1. MFN 08-082 - Response to Portion of NRC Request for Additional Information Letter No. 120 Related to ESBWR Design Certification Application - Containment Systems - RAI Number 6.2-164 S01

cc: AE Cubbage USNRC (with enclosures)
DH Hinds GEH/Wilmington (with enclosures)
GB Stramback GEH/San Jose (with enclosures)
RE Brown GEH/Wilmington (with enclosures)
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Enclosure 1

MFN 08-082

**Response to Portion of NRC Request for
Additional Information Letter No. 120
Related to ESBWR Design Certification Application**

Containment Systems

RAI Number 6.2-164 S01

NRC RAI 6.2-164 S01:

In response to RAI 6.2-164, GEH provided reference to structures response to containment loads. The staff, however, cannot find details of the analysis for the submerged structures. In particular, the staff is concerned with the ability of the PCCS vent pipe to withstand postulated hydrodynamic loads and maintain its submergence depth, which is an essential condition for the long term containment cooling. Please indicate if such an analysis was performed and provide an appropriate reference.

GEH Response:

This item is addressed through Inspections, Tests, Analyses and Acceptance Criteria (ITAAC) as described in the response to RAI 14.3-131 S01, MFN 07-266 Supplement 1, dated November 29, 2007. As stated in the response to RAI 14.3-131 S01, DCD Tier 1, Table 3.1-1 will be revised to specify a generic ITAAC for all ASME Section III components.

Passive Containment Cooling System (PCCS) piping design and analysis will be completed during detailed design and will be confirmed by the ITAACs in DCD Tier 1 Section 3.1 as revised in the response to RAI 14.3-131 S01, MFN 07-266 Supplement 1, dated November 29, 2007.

DCD Impact:

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