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MFN 08-079

Docket No. 52-010

March 5, 2008

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. 100 Related to ESBWR Design
Certification Application - Containment Systems -
RAI Number 6.2-162**

Enclosure 1 contains the GE Hitachi Nuclear Energy (GEH) response to the
subject NRC RAI transmitted via the Reference 1 letter.

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

Sincerely,

James C. Kinsey
Vice President, ESBWR Licensing

*DOGS
NRO*

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Reference:

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

Enclosure:

1. MFN 08-079 - Response to Portion of NRC Request for Additional Information Letter No. 100 Related to ESBWR Design Certification Application - Containment Systems - RAI Number 6.2-162

cc: AE Cabbage USNRC (with enclosures)
DH Hinds GEH/Wilmington (with enclosures)
GB Stramback GEH/San Jose (with enclosures)
RE Brown GEH/Wilmington (with enclosures)
eDRF 0000-0076-1660

Enclosure 1

MFN 08-079

**Response to Portion of NRC Request for
Additional Information Letter No. 100
Related to ESBWR Design Certification Application**

Containment Systems

RAI Number 6.2-162

NRC RAI 6.2-162:

Concerning Chapter 6.2.1.3:

DCD, Tier 2, Revision 3, Figure 5.2-2 does not appear to correspond to the description in Chapters 6.3 and 5.2.2 of the DCD.

- A. Revise Figure 5.2-2 to reflect the current automatic depressurization system (ADS) arrangement as described in Section 6.1 of NEDE-33261P and Chapters 6.3 and 5.2.2 of the DCD.*
- B. Include the final arrangement of the safety relief valves (SRVs), safety valves (SVs), and depressurization valves (DPVs) in the DCD.*
- C. Provide an associated ITAAC to verify the number, elevation and location for the final arrangement of SRVs, SVs and DPVs.*

GEH Response:

The issues identified in this request were addressed in DCD Tier 1, Revision 4, and DCD Tier 2, Revision 4, as follows:

- A. Figure 5.2-2 was revised to clearly show the arrangement of safety relief valves (SRVs) distinctly from the safety valves (SVs) on the four main steam lines. The text of DCD Tier 2, Revision 4, Subsection 5.2.2 and Section 6.3, was revised to clarify the association of the SRVs to the Automatic Depressurization System (ADS) logic. The duplicate Figure 6.3-4 was removed from Section 6.3, and a text reference to Subsection 5.2.2 was inserted into Subsection 6.3.2.8.2. The text was also changed to clarify that the SVs are not a part of the Nuclear Boiler System (NBS) depressurization that is initiated by the ADS logic. This conforms to the descriptions provided in NEDE-33261P, ESBWR Containment Load Definition.
- B. Figure 5.2-2 was revised to reflect the final design arrangement of SRVs, SVs, and depressurization valves (DPVs).
- C. DCD Tier 1, Revision 4, was revised to add a new Table 2.1.2-1 that lists the NBS mechanical equipment, including SRVs, SVs, and DPVs. New DCD Tier 1 Table 2.1.2-2 lists the corresponding NBS electrical equipment. The revised Table 2.1.2-3, "ITAAC for the Nuclear Boiler System," Items 1 and 2, address functional arrangement of the NBS and compliance with ASME Code design and installation (as-built construction) requirements, satisfying the request to provide an ITAAC to verify the number, elevation and location for the final arrangement of SRVs, SVs, and DPVs.

DCD Impact:

The DCD changes described in the above response to this RAI were made in DCD Tier 1, Revision 4, and DCD Tier 2, Revision 4. No additional DCD changes will be made in response to this RAI.