

May 13, 2008

Mr. Robert E. Brown  
Senior Vice President, Regulatory Affairs  
GE Hitachi Nuclear Energy  
3901 Castle Hayne Road MC A-45  
Wilmington, NC 28401

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 200 RELATED TO  
ESBWR DESIGN CERTIFICATION APPLICATION

Dear Mr. Brown:

By letter dated August 24, 2005, GE Hitachi Nuclear Energy (GEH) submitted an application for final design approval and standard design certification of the economic simplified boiling water reactor (ESBWR) standard plant design pursuant to 10 CFR Part 52. The U.S. Nuclear Regulatory Commission (NRC) staff is performing a detailed review of this application to enable the staff to reach a conclusion on the safety of the proposed design.

The NRC staff has identified that additional information is needed to continue portions of the review. The staff's request for additional information (RAI) is contained in the enclosure to this letter.

If you have any questions or comments concerning this matter, you may contact me at 301-415-8484 or [Tom.Tai@nrc.gov](mailto:Tom.Tai@nrc.gov) or you may contact Amy Cabbage at 301-415-2875 or [Amy.Cabbage@nrc.gov](mailto:Amy.Cabbage@nrc.gov).

Sincerely,

*/RA/*

Tom M. Tai, Senior Project Manager  
ESBWR/ABWR Projects Branch 1  
Division of New Reactor Licensing  
Office of New Reactors

Docket No. 52-010

Enclosure:  
Request for Additional Information

cc: See next page

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SUBJECT: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 200 RELATED TO  
ESBWR DESIGN CERTIFICATION APPLICATION DATED MAY 13, 2008

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**Requests for Additional Information (RAIs)  
ESBWR Design Control Document (DCD), Revision 4**

<b>RAI Number</b>	<b>Reviewer</b>	<b>Question Summary</b>	<b>Full Text</b>
RAI 6.2-157, Supplement 1, (MFN 08-193, March 5, 2008)	Goel R	Information on containment penetrations and pipe lengths from penetrations to isolation valves in sections 2 (Tier 1) and 6.2 (Tier 2) tables	<p>(1) In GEH’s response to RAI 6.2-157 (Item A), it states that “the design of the containment isolation provisions is the responsibility of GEH not the COL applicants.” However, the tables provided in the response (Tier 1 Table 2.15.1-1 and Tier 2 Tables 6.2-45 and 6.2-47) continue to have “TBD” as entries for penetration numbers and other information such as location and penetration type. Please remove “TBD” as entries and provide the pertinent information.</p> <p>(2) DCD Tier 2, Table 6.2-42 for PRM containment isolation valves, refers to Subsection 6.2.4.2 for pipe length between containment and inboard/outboard isolation valves. However, Subsection 6.2.4.2 does not have this information. Please provide correct reference.</p> <p>(3) GEH’s response to RAI 6.2-157 (Item A), third bullet, states that the Motion Control Rod Drive System (FMCRD) lines are continuously pressurized, therefore, no containment isolation valves are needed. Please provide a more detailed justification.</p> <p>(4) GEH’s response to RAI 6.2-157 (Item A), fifth bullet, refers to the response to RAI 6.2-122 S01 which updated several DCD tables, including Table 6.2-35. However, Table 6.2-35 in the response to RAI 6.2-157 does not reflect the same information as RAI 6.2-122. Please make sure that all revisions to the DCD address commitments to all RAI responses and the latest information is included.</p> <p>(5) GEH’s response to RAI 6.2-157 (page 15 of 85) for Subsection 6.2.4.2, states that “tables 6.2-15 through 6.2-45 show the pertinent data for the containment isolation valves, except for excess flow check valves as discussed in Section 6.2.4.2.2 (Refer to COL item in 6.2.8)”. Since Section 6.2.8 only addresses missing pipe lengths in Tables 6.2-15 to 6.2-45, please correct the reference.</p>

RAI Number	Reviewer	Question Summary	Full Text
			<p>(6) In GEH's response to RAI 6.2-157, new tables are added. DCD, Rev. 4, Subsections 6.2.4.3.2.1 and 6.2.4.3.2.2 refer to Tables 6.2-33 through 6.2-42. However, Table 6.2-45 should also be included in these sections. Influent and effluent lines to and from the containment for systems such as Makeup Water, Service Air, Containment Monitoring, and Equipment Floor Drain should be included in the above sections. GEH should review the existing DCD content to ensure new information is incorporated where appropriate.</p> <p>(7) COL item 6.2-1-H in Section 6.2.8 requires COL holder to provide the missing information in Tables 6.2-16 through 6.2-42. This is the length of pipe between the containment and the isolation valve(s). Although it is understood that this information is not available until detailed design, GEH should provide acceptance criteria such that this information can be validated in ITAAC.</p>

DC GE - ESBWR Mailing List

(Revised 04/28/2008)

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Enclosure

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