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U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555-0001

Subject **Submittal of Preliminary ESBWR Design Control Document, Revision 6, Chapter 15, Safety Analysis**

GE Hitachi Nuclear Energy (GEH) submitted a design certification application for the ESBWR to the U.S. Nuclear Regulatory Commission (NRC) in a letter dated August 24, 2005 (reference 1), which included Revision 0 of the Design Control Document (DCD). The NRC accepted this application in a letter dated December 1, 2005 (reference 2). As part of the ongoing NRC review, GEH has responded to NRC requests for additional information (RAIs) and has submitted revisions to the DCD through Revision 5, which was submitted June 1, 2008. GEH is currently preparing Revision 6 of the DCD, which will incorporate RAI responses intended to address remaining NRC open items and establish the basis for the NRC Final Safety Evaluation for the design certification. The NRC issued a review schedule in a letter dated February 18, 2009 (reference 3).

In recent interactions between GEH and the NRC regarding incorporation of RAI responses into the DCD, GEH and the NRC discussed submittal of completed preliminary DCD chapters and associated change lists in advance of Revision 6 to facilitate NRC staff actions in preparing the advanced Final Safety Evaluation Report for review by the Advisory Committee for Reactor Safeguards (ACRS).

In this regard, GEH has determined the chapter contained in Enclosure 1 is complete in that there are no outstanding RAI responses associated with this chapter that impact the DCD and the chapter content has been verified by the ESBWR technical team. The chapter is not expected to undergo significant changes before issuance of Revision 6; however, GEH plans to perform an integrated quality review of the entire DCD prior to final submittal. The integrated quality review may result in changes such as any needed for (1) correction of administrative information, formatting, or conversion issues;

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(2) ensuring consistency; (3) ensuring internal references remain appropriate; and (4) improving quality of the document. To reflect the status of the enclosed chapter and ensure the NRC technical reviewers will be able to differentiate between the preliminary version and the final version (Revision 6), GEH has marked the chapter as "Preliminary."

Although GEH does not expect to discover any technical concerns, any issues that would change the technical content in the DCD will be discussed with the NRC in advance of submitting Revision 6.

If you have any questions, please contact me.

Sincerely,

Richard E. Kingston

Richard E. Kingston
Vice President, ESBWR Licensing

References:

1. MFN 05-084, General Electric Company Application for Final Design Approval and Design Certification of ESBWR Standard Plant Design, dated August 24, 2005
2. Letter from U.S. Nuclear Regulatory Commission to Steven A. Hucik, *Acceptance of the General Electric Company Application for Final Design Approval and Standard Design Certification for the Economic Simplified Boiling Water Reactor (ESBWR) Design,* dated December 1, 2005
3. MFN 09-144, Letter from U.S. Nuclear Regulatory Commission to Robert E. Brown, *Economic Simplified Water Reactor (ESBWR) Design Certification Schedule Update,* dated February 18, 2009

Enclosure:

1. CD - Enclosure 1 - Preliminary ESBWR Design Control Document, Revision 6, Chapter 15, Safety Analysis

cc:	AE Cubbage	USNRC (with enclosure)
	JG Head	GEH/Wilmington (w/o enclosure)
	DH Hinds	GEH/Wilmington (w/o enclosure)
	eDRF Section	0000-0000-7975/R7

CD Enclosure 1

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Preliminary ESBWR Design Control Document, Revision 6

Chapter 15, Safety Analysis