

GE-Hitachi Nuclear Energy Americas LLC

James C. Kinsey
Project Manager, ESBWR Licensing

PO Box 780 M/C A-55
Wilmington, NC 28402-0780
USA

T 910 675 5057
F 910 362 5057
jim.kinsey@ge.com

MFN 07-399

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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. 97 Related to ESBWR Design Certification Application
ESBWR Probabilistic Risk Assessment RAI Number 19.1-149.**

The purpose of this letter is to submit the GE-Hitachi Nuclear Energy Americas LLC (GEH) response to the U.S. Nuclear Regulatory Commission (NRC) Request for Additional Information (RAI) sent by NRC letter dated May 10, 2007. GEH response to RAI Number 19.1-149 is addressed in Enclosure 1.

Should you have any questions about the information provided here, please contact me at 910-675-5057 or jim.kinsey@ge.com.

Sincerely,



James C. Kinsey
Project Manager, ESBWR Licensing

Reference:

1. NRC letter to James C. Kinsey, GEH, *Request For Additional Information Letter No. 97 Related To ESBWR Design Certification Application*, dated May 10, 2007 (MFN 07-292)

Enclosure:

1. Response to Portion of NRC Request for Additional Information Letter No. 97 Related to ESBWR Design Certification Application ESBWR Probabilistic Risk Assessment RAI Number 19.1-149.

cc: AE Cubbage USNRC (with enclosure)
GB Stramback GEH/San Jose (with enclosure)
RE Brown GEH/Wilmington (with enclosure)
eDRF 0000-0072-5896

Enclosure 1

MFN 07-399

**Response to Portion of NRC Request for Additional Information
Letter No. 97 Related to ESBWR Design Certification
Application ESBWR Probabilistic Risk Assessment RAI
Number 19.1-149**

RAI 19.1-149

Please provide additional information to address issues described in NUREG-1449, "Shutdown and Low Power Operation at Commercial Power Plants in the U.S.," which was issued in September 1993. The staff recognizes that due to ESBWR's unique design, not all of the scenarios discussed in NUREG-1449 would be directly applicable to ESBWR; however many of the issues identified in the NUREG would be applicable. The staff requests a systematic evaluation of shutdown risk for ESBWR similar to those submitted by GE and Westinghouse in support of the ABWR (ABWR DCD Tier 2, Revision 4, Appendix 19Q) and AP600 (WCAP-14837, revision 3, March 1998) design certifications, respectively.

GEH Response

A systematic evaluation of shutdown risk for the ESBWR, which addresses many of the issues identified in NUREG-1449, is provided in Revision 2 to NEDO-33201:

Section 16 for shutdown internally-initiated events;
Section 12 for shutdown fire-initiated events; and
Section 13 for shutdown flooding-initiated events.

Revision 2 of Section 16 will be issued in August 2007. Revision 2 of Sections 12 and 13 will be issued in September 2007.

DCD/NEDO-33201 Impact

There is no impact on the DCD.

Revision 2 of NEDO-33201 will address the RAI.