



**HITACHI**

**GE Hitachi Nuclear Energy**

James C. Kinsey  
Vice President, 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 08-069

Docket No. 52-010

January 25, 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. 97 Related to ESBWR Design Certification Application  
– Safety Analyses – RAI Number 15.4-30**

The purpose of this letter is to submit the GE Hitachi Nuclear Energy (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 15.4-30 is addressed in Enclosure 1.

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

Sincerely,

James C. Kinsey  
Vice President, ESBWR Licensing

DO68  
NRC

Reference:

1. MFN 07-292, Letter from U.S. Nuclear Regulatory Commission to Robert E. Brown, GEH, *Request For Additional Information Letter No. 97 Related To ESBWR Design Certification Application*, dated May 10, 2007.

Enclosure:

1. Response to Portion of NRC Request for Additional Information Letter No. 97 Related to ESBWR Design Certification Application – Safety Analyses – RAI Number 15.4-30

cc: AE Cubbage      USNRC (with enclosure)  
GB Stramback      GEH/San Jose (with enclosure)  
RE Brown          GEH/Wilmington (with enclosure)  
eDRF                0000-0054-9447

**Enclosure 1**

**MFN 08-069**

**Response to Portion of NRC Request for  
Additional Information Letter No. 97  
Related to ESBWR Design Certification Application**

**Safety Analyses**

**RAI Number 15.4-30**

**NRC RAI 15.4-30:**

*Please include ITAAC for assumed control room unfiltered air in leakage rates. DCD Tier 2, Revision 3, Table 15.4-5, "Loss-of-Coolant Accident Parameters," specifies an assumed control room unfiltered air inleakage rate of  $1.13\text{E-}2$  cubic meter per minute. Please include this assumed control room unfiltered air inleakage rate in DCD Tier 1, Table 2.16.2-1, "ITAAC for the Reactor Building HVAC," of Section 2.16.2, "Heating, Ventilating, and Air-Conditioning Systems," as an ITAAC item, and (2) in DCD Tier 2, Chapter 16, "Technical Specifications," Section 3.7.2, "Control room Habitability Area Heating, Ventilation, and Air Conditioning Subsystem," as surveillance requirements in accordance with guidance provided in Technical Specification Task Force (TSTF) - 448 (dated July 1, 2003).*

**GEH Response:**

The control room emergency filter units (EFU) are only credited to mitigate the consequences of a LOCA. The revised LOCA dose consequences were submitted to the NRC via NEDE-33279P, "ESBWR Containment Fission Product Removal Evaluation Model," Revision 1, August 2007, which was transmitted to the NRC via GEH Letter MFN 06-205, Supplement 2 dated August 30, 2007. A value of 5.66 l/s (12 cfm) is assumed in the revised LOCA dose analysis.

DCD, Tier 1, Table 2.16.2-6, Revision 4, includes the ITAAC for confirming that CRHA in-leakage does not exceed the unfiltered in-leakage assumed by control room operator dose analysis.

The requirements of TSTF-448 are included in DCD, Tier 2, Chapter 16, "Technical Specifications," Revision 4, Section 5.5.12.

**DCD Impact:**

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