

GE-Hitachi Nuclear Energy Americas LLC

**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 06-159 Supplement 2

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U.S. Nuclear Regulatory Commission  
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**Subject: Response to Portion of NRC Request for Additional Information  
Letter No. 18 - Containment Subcompartment Loads - RAI Number  
6.2-29 S01**

Enclosure 1 contains the GE-Hitachi Nuclear Energy Americas LLC (GEH) response to the subject NRC RAI originally transmitted via the Reference 1 letter and supplemented by an NRC request for clarification.

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

Sincerely,



James C. Kinsey  
Vice President, ESBWR Licensing



NRO

Reference:

1. MFN 06-113, Letter from U.S. Nuclear Regulatory Commission to David Hinds, *Request for Additional Information Letter No. 18 Related to ESBWR Design Certification Application*, April 24, 2006

Enclosure:

1. MFN 06-159 Supplement 2 - Response to Portion of NRC Request for Additional Information Letter No. 18 - Related to ESBWR Design Certification Application - Containment Subcompartment Loads - RAI Number 6.2-29 S01

cc: AE Cabbage USNRC (with enclosures)  
GB Stramback GEH/San Jose (with enclosures)  
RE Brown GEH/Wilmington (with enclosures)  
eDRF 0000-0073-7304

**Enclosure 1**

**MFN 06-159 Supplement 2**

**Response to Portion of NRC Request for**

**Additional Information Letter No. 18**

**Related to ESBWR Design Certification Application**

**Containment Subcompartment Loads**

**RAI Number 6.2-29 S01**

**NRC RAI 6.2-29 S01:**

*Concerning GE's response to RAI 6.2-29, TRACG04 model description, please provide code validation information on TRACG evaluation of subcompartment pressurization and comparison to approved methods. This information is not provided in NEDE-32176P, "Licensing Topical Report: TRACG Model Description," Revision 3, April 2006.*

**GEH Response:**

This response provides references where TRACG evaluations of subcompartment pressurization are discussed, and NRC approvals for these evaluations, are located. Evaluation of the ability of TRACG to calculate subcompartment pressurization is provided in Reference 1. Reference 1 compares TRACG calculations to simulated loss-of-coolant accident (LOCA) conditions in PANTHERS (Reference 1, Section 4.2), PANDA (Reference 1, Section 4.3), GIRAFFE (Reference 1, Sections 5.2 through 5.3), Mark III Containment Response (Reference 1, Section 5.5), 4T/Mark II Containment Response (Reference 1, Section 5.6) and other test facilities. Reference 2 establishes applicability of pressurization analyses to ESBWR.

TRACG has been approved for ESBWR LOCA containment analysis (Reference 2), making it an approved method for containment calculations. "Comparison to approved methods" is not necessary.

**References**

1. "TRACG Qualification for SBWR," GE Nuclear Energy Report NEDC-32725P, Rev. 1, August 2002.
2. "TRACG Application for ESBWR," GE Nuclear Energy Report NEDC-33083P-A, March 2005.

**DCD Impact:**

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

No changes to the subject LTR will be made in response to this RAI.