



GE Energy

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MFN 07-086  
Supplement 1

Docket No. 52-010

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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. 67 Related to ESBWR Design Certification Application –  
DCD Section 3.9 – RAI Number 3.9-31 S01, Supplement 1**

Enclosure 1 contains an amended response to the subject RAI. GE's original response was provided in the Reference 1 letter.

If you have any questions or require additional information regarding the information provided here, please contact me.

Sincerely,

James C. Kinsey  
Project Manager, ESBWR Licensing

DD68

Reference:

1. MFN 07-086, Letter from David Hinds to U.S. Nuclear Regulatory Commission, *Response to Portion of NRC Request for Additional Information Letter No. 67 Related to ESBWR Design Certification Application – DCD Section 3.9 – RAI Numbers 3.9-24, 3.9-25, 3.9-28, 3.9-31, 3.9-33, 3.9-45, 3.9-111, 3.9-112 through 3.9-119, 3.9-123 through 3.9-126, and 3.9-175*, February 16, 2007

Enclosure:

1. MFN 07-086, Supplement 1 – Response to Portion of NRC Request for Additional Information Letter No. 67 Related to ESBWR Design Certification Application – DCD Section 3.9 – RAI Number 3.9-31 S01

cc: AE Cabbage USNRC (with enclosures)  
DH Hinds GE (with enclosures)  
RE Brown GE (w/o enclosures)  
eDRF 0000-0065-6949

**Enclosure 1**

**MFN 07-086**

**Supplement 1**

**Response to Portion of NRC Request for**

**Additional Information Letter No. 67**

**Related to ESBWR Design Certification Application**

**DCD Section 3.9 – RAI Number 3.9-31 S01  
(Amended Response to RAI 3.9-31)**

**NRC RAI 3.9-31**

*DCD Tier 2, Section 3.7.3.3.3, states that when the special engineered supports, described in Section 3.9.3.7.1(6), are used, modifications to the linear-elastic piping analysis methodology used with conventional pipe supports are needed to account for greater damping of the energy absorbers and the non-linear behavior of the limit stops. Discuss in detail the modifications involved, and the acceptability of the modeling and analytical methodology used. In addition, describe the information required by Regulatory Guide 1.84, Revision 33, August 2005, that shall be provided to the NRC for review.*

**GE Response**

Code cases provide alternatives developed and approved by ASME or explain the intent of existing Code requirements. Regulatory Guide 1.84 identifies the Code Cases that have been determined by the NRC to be acceptable alternatives to applicable parts of Section III. Code Case N-420 ( titled: Linear Energy Absorbing Supports for Subsection NF, Classes 1,2, and 3 Construction) is identified on page 21 of Regulatory Guide 1.84 Revision 33, August 2005, as having been annulled on 1/1/99, implying that this Code Case has served its purpose and has probably been incorporated into ASME Section III Subsection NF.

**DCD Impact**

DCD Tier 2 Section 3.7.3.3.3 will be revised as noted in the attachment.

**NRC RAI 3.9-31 S01**

*DCD Tier 2, Section 3.7.3.3.3, states that when the special engineered supports, described in Section 3.9.3.7.1(6), are used, modifications to the linear-elastic piping analysis methodology used with conventional pipe supports are needed to account for greater damping of the energy absorbers and the non-linear behavior of the limit stops. Discuss in detail the modifications involved, and the acceptability of the modeling and analytical methodology used. In addition, describe the information required by Regulatory Guide 1.84, Revision 33, August 2005, that shall be provided to the NRC for review.*

**GE Amended Response - RAI 3.9-31 S01**

Special Engineered Pipe Supports as noted in DCD2 Rev.2 Subsections 3.7.3.3.3 and 3.9.3.7.1(6) will not be used as discussed in the response to RAI 3.12-13 (MFN 06-119). GE has so noted in DCD Tier 2, Rev. 3 Subsections 3.7.3.3.3 and 3.9.3.7.1(6). Therefore, the original response to this RAI is no longer applicable, and no further action is necessary.

**DCD Impact**

No DCD changes will be made to this RAI.