



GE Energy

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MFN 06-290 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. 41 - Preservice and Inservice Inspection and Testing of
Reactor Coolant Pressure Boundary - RAI Number 5.2-50 S01**

Enclosure 1 contains GE's 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
Project Manager, ESBWR Licensing

Reference:

1. MFN 06-220, Letter from U.S. Nuclear Regulatory Commission to David Hinds, *Request for Additional Information Letter No. 41 Related to ESBWR Design Certification Application*, July 10, 2006

Enclosure:

1. MFN 06-290 Supplement 2 - Response to Portion of NRC Request for Additional Information Letter No. 41 - Related to ESBWR Design Certification Application - Preservice and Inservice Inspection and Testing of Reactor Coolant Pressure Boundary - RAI Number 5.2-50 S01

cc: AE Cabbage USNRC (with enclosures)
BE Brown GE/Wilmington (with enclosures)
GB Stramback GE/San Jose (with enclosures)
eDRF 0000-0067-4778

Enclosure 1

MFN 06-290 Supplement 2

Response to Portion of NRC Request for

Additional Information Letter No. 41

Related to ESBWR Design Certification Application

**Preservice and Inservice Inspection and Testing
of**

Reactor Coolant Pressure Boundary

RAI Number 5.2-50 S01

NRC RAI 5.2-50:

Provide a discussion on Code Cases listed in DCD Tier 2, Table 5.2-1 that have not been approved for use by the NRC including a basis for their use (i.e. N-634, -491-2).

GE Original Response:

GE will remove reference to un-approved code cases and provide a justification for the use of newer Code Cases that are not yet in the Regulatory Guides, i.e., N-634. In the "Remarks" column for Code Case N-634, the following words will be added: "This case allows attachment of non-pressure retaining materials meeting the requirements of NF-2000 to Subsection CC liners in the same manner as permitted under Subsection NE for MC components, except that welding and examination are required to meet the requirements of Subsection CC." Reference to N-491-2 will be deleted.

NRC RAI 5.2-50 S01:

In GE's response to RAI 5.2-50 (GE Letter MFN 06-290), GE referenced Code Case N-634. Code Case N-634 has not been endorsed by the NRC staff. The staff requests that the applicant provide a list of all materials that it intends to attach to the containment liner that do not meet the provisions of CC-2511 regarding liner attachments. Provide a basis for using each material not meeting the requirements of CC-2511.

GE Response:

To provide flexibility for material selection in detail design for the design of liner attachments such as pipe supports, Code Case N-634 has been invoked in DCD Tier 2, Table 5.2-1. This code case permits any steel to be used as a structural attachment to the containment liner provided it is permitted to be attached to ASME Section III, Division 1 containment vessel shell under the rules of ASME Section III, NE-2190(a).

DCD Tier 2, Subsection 3.8.3.6, lists ASTM A709 HPS 70W as a material that is used for containment internal structures. An example of an attachment to the containment liner is shown on DCD Tier 2, Figure 3G.1-55. This material does not meet CC-2511 requirements and GE is currently pursuing a new Code Case to permit this material to be used as a structural attachment to containment liners.

DCD Impact:

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