



GE Energy

James C. Kinsey
Project Manager, ESBWR Licensing

PO Box 780 M/C J-70
Wilmington, NC 28402-0780
USA

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

MFN 06-532

Docket No. 52-010

December 22, 2006

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. 83 – Bulletin 80-08 for Penetration Weld UT – RAI
Number 20.0-5**

Enclosure 1 contains GE's response to the subject NRC RAIs transmitted via the Reference 1 letter.

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

Sincerely,

A handwritten signature in cursive script that reads "Kathy Sedney for".

James C. Kinsey
Project Manager, ESBWR Licensing

MFN 06-532

Page 2 of 2

Reference:

1. MFN 06-516, Letter from U.S. Nuclear Regulatory Commission to David Hinds, *Request for Additional Information Letter No. 83 Related to the ESBWR Design Certification Application*, December 12, 2006

Enclosures:

1. MFN 06-532 – Response to Portion of NRC Request for Additional Information Letter No. 83 – Bulletin 80-08 for Penetration Weld UT – RAI Number 20.0-5

cc: AE Cubbage USNRC (with enclosures)
GB Stramback GE/San Jose (with enclosures)
eDRF 0062-6546

ENCLOSURE 1

MFN 06-532

**Response to Portion of NRC Request for Additional
Information Letter No. 83 Related to ESBWR Design
Certification Application**

Bulletin 80-08 for Penetration Weld UT

RAI 20.0-5

NRC RAI 20.0-5:

Question Summary: Discuss concerns of Bulletin 80-08 for Penetration Weld UT

Address concerns of Bulletin 80-08. In view of past weld inspection issues associated with the use of backing bars, provide the following information. Provide a description of containment welds, pressure boundary and structural, that have a weld joint design that utilizes a backing bar and requires a volumetric inspection for which the applicant will use the ultrasonic inspection method. Describe what steps will be taken to ensure that the examination techniques will reliably identify welding defects given the issues identified in Bulletin 80-08

GE Response:

IE Bulletin 80-08 specifically concerned problems with UT of weld joints with backing bars for weld joints in flued-head containment penetration assemblies or other penetration sleeve and process piping joints as illustrated in Figure NE-1120-1 of Section III the ASME Code. The ESBWR does not use backing bars in weld joints for such assemblies; therefore, the issue raised by Bulletin 80-08 is not applicable to the ESBWR design.

Regarding other containment weld joints with backing bars, the 2001 Edition was revised to delete the requirement for radiography of any welds made with backing bars; the change also clarifies that welds made using backing bars shall be examined by UT or MT. Backing bars are commonly used in structural applications and ultrasonically examined without issue. The fact that the Bulletin addressed only flued-head containment penetration assemblies indicates that the concern was with a problem associated with that particular geometry.

DCD Impact:

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