



HITACHI

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MFN 08-099

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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. 110 - Related to ESBWR
Design Certification Application – RAI Numbers 4.8-
15 Supplement 1 and 4.8-16 Supplement 2**

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 the Reference 1 NRC letter. GEH response to RAI Numbers 4.8-15 Supplement 1 and 4.8-16 Supplement 2 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 07-510, Letter from U.S. Nuclear Regulatory Commission to Robert E. Brown, *Request for Additional Information Letter No. 110 Related to the ESBWR Design Certification Application*, dated September 19, 2007..

Enclosure:

1. MFN 08-099 – Response to Portion of NRC Request for Additional Information Letter No. 110 - Related to ESBWR Design Certification Application – RAI Numbers 4.8-15 S01 and 4.8-16 S02

cc: AE Cubbage USNRC (with enclosure)
GB Stramback GEH/San Jose (with enclosure)
RE Brown GEH/Wilmington (with enclosure)
DH Hinds GEH/Wilmington (with enclosure)
eDRF 0000-0080-6494

Enclosure 1

MFN 08-099

Response to Portion of NRC Request for

Additional Information Letter No. 110

Related to ESBWR Design Certification Application

RAI Numbers 4.8-15 S01 and 4.8-16 S02

NRC RAI 4.8-15 S01 and NRC RAI 4.8-16 S02

Revised GSTRM Part 21 report

As discussed during the July 2007 GEH Control Blade and Fuel Assembly Design Audit, please provide the revised GSTRM Part 21 report and revise the text of the original RAI response citing adequate conservatism.

GEH Response

In MFN 07-040 (January 21, 2007), GEH provided a summary of the extensive evaluation performed to demonstrate the conservatism in the GESTR-M code and its associated statistical methodology for fuel licensing and design calculations. Based upon review of MFN 07-040 NRC requested additional quantification of the conservatism in the calculation to confirm compliance with the rod internal pressure SAFDL. This quantification was provided in a revised GESTR-M Part 21 evaluation and transmitted to the NRC in January 2008[1]. Based on these evaluations, GEH concluded that GESTR-M and its associated application methodology is adequate for fuel licensing and design calculations within its qualified domain, and that application of GESTR-M and its associated methodology does not constitute a reportable condition under 10CFR21. The discussion of conservatism in the revised Part 21 evaluation replaces the discussion of conservatism in the original RAI response.

Reference:

[1] GEH MFN letter 07-040 (Supplement 1) from Dale Porter to U.S. NRC, "Part 21 Notification: Adequacy of GE Thermal-Mechanical Methodology, GESTR-M – Supplement 1," January 4, 2008.

DCD Impact

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