



HITACHI

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MFN 07-079 Supp 1

Docket No. 52-010

November 1, 2007

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. 87 - NEDC-33239P - RAI Number 21.6-94 Supplement 1**

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 Number 21.6-94 Supplement 1 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

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Reference:

1. MFN 07-102, Letter from U.S. Nuclear Regulatory Commission to David Hinds, Request for Additional Information Letter No. 87 Related to the ESBWR Design Certification Application, February 8, 2007

Enclosure:

1. MFN 07-079 Supplement 1 – Response to Portion of NRC Request for Additional Information Letter No. 87 – Related to ESBWR Design Certification Application – NEDC-33239P – RAI Number 21.6-94 S01

cc: AE Cabbage USNRC (with enclosure)
GB Stramback GEH/San Jose (with enclosure)
RE Brown GEH/Wilmington (with enclosure)
eDRF 0000-0075-8139

Enclosure 1

MFN 07-079 Supplement 1

Response to Portion of NRC Request for

Additional Information Letter No. 87

Related to ESBWR Design Certification Application

NEDC-33239P

RAI Number 21.6-94 S01

NRC RAI 21.6-94 S01

The staff does not require additional information regarding [[]] to complete review of the DCD Section 4.3. However, per the requirements of 10 CFR 74.13, the COL holder will be required to produce a material balance report. Update the DCD to include a COL applicant action item for the COL applicant to inform the staff of this means or method for producing such a report.

GE Response

The GEH ESBWR design will use the same isotopic modeling method as the fleet has used for years. As stated in response to RAI 21.6-86 S01 via MFN 06-467, Supplement 1, dated March 6, 2007, and in response to RAI-21.6-94 via MFN 07-079, dated March 29, 2007, GEH is not seeking approval of the PANAC11 isotopic tracking method for application to the ESBWR.

DCD Revision 4 Subsection 4.3.2 "Nuclear Design Analytical Methods", Subsection 4.3.2.1 "Steady-state nuclear methods" page 4.3-3 states in paragraph 4 "a Runge-Kutta-Gill burnup scheme is employed to determine the isotopic inventory for fuel material depletion". This method has been approved by the Staff, as stated in page 4.3-2: "The steady-state nuclear evaluations of the reference core design are performed using the analytical tools and methods approved in Reference 4.3-2." This reference is the Amendment 26 to GESTAR II regarding the implementation of improved steady-state nuclear methods, dated November 10, 1999.

Inasmuch as adherence to 10 CFR 74.13 will be a license condition for a COLA and considering that GEH intends to use the same isotopic modeling method used on the current fleet that has been acceptable to the Staff, GEH does not consider that it is necessary to include a COL applicant action item in the DCD.

DCD Impact

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