



GE Energy

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MFN 07-079

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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. 87 – NEDC-33239P – RAI Number 21.6-94**

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,

Kathy Sedney for

James C. Kinsey
Project Manager, 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

Enclosures:

1. MFN 07-079– Response to Portion of NRC Request for Additional Information Letter No. 87 – NEDC-33239P – RAI Number 21.6-94

cc: AE Cabbage USNRC (w/enclosures)
GB Stramback GE/San Jose (w/enclosures)
BE Brown GE/Wilmington (w/enclosures)

Enclosure 1

MFN 07-079

**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

NRC RAI 21.6-94 (Non-Proprietary Version):

Section 1.4.7 of NEDC-33239P, Rev. 0, describes an isotopic tracking method. As part of an audit, the staff reviewed aspects of the [[]]. Confirm whether or not GE is seeking NRC approval of the [[]] isotopic tracking method for the ESBWR since this tracking method is different from the tracking method provided in LTR NEDC-33239P, and GE is proposing to remove this section as stated in RAI response 21.6-86 (MFN 06-467). If GE is seeking NRC approval for this methodology for the ESBWR:

A. Provide a list of the specific licensing analyses that rely on calculations performed using this methodology.

B. Provide an analysis comparing the PANAC11AE8 [[]] and TGBLA06AE5. This analysis should compare the isotopic inventory predicted for a GE14E [[]] node, a GE14E [[]] node near [[]], and a GE14E [[]] node through a full range of exposure (initial loading to discharge) based on a characteristic bundle exposure history in the ESBWR equilibrium cycle. The PANAC11 calculated inventory for these nodes should be compared to an explicit depletion calculation performed using

TGBLA06AE5 where restart calculations are used to emulate the control, exposure and void history for the aforementioned nodes. The TGBLA06AE5 restart calculations should use an [[]] that is equivalent to the [[]].

C. Justify the dependence of the isotopic inventory on [[]].

GE Response:

As stated in the response to RAI 21.6-86 Supplement 1 (MFN 06-467, Supplement 1, dated March 6, 2007), GE is not seeking NRC approval of the PANAC11 isotopic tracking method for application to the ESBWR.

Affected Documents:

There are no DCD or LTR changes in response to this RAI.