

February 5, 2007

Mr. David H. Hinds, Manager, ESBWR
General Electric Company
P.O. Box 780, M/C J70
Wilmington, NC 28402-0780

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 87 RELATED TO
ESBWR DESIGN CERTIFICATION APPLICATION

Dear Mr. Hinds:

By letter dated August 24, 2005, General Electric Company (GE) submitted an application for final design approval and standard design certification of the economic simplified boiling water reactor (ESBWR) standard plant design pursuant to 10 CFR Part 52. The Nuclear Regulatory Commission (NRC) staff is performing a detailed review of this application to enable the staff to reach a conclusion on the safety of the proposed design.

The NRC staff has identified that additional information is needed to continue portions of the review. The staff's request for additional information (RAI) is contained in the enclosures to this letter. RAI question 21.6-94 is related to NEDC-33239P, "GE14 for ESBWR Nuclear Design Report."

Pursuant to 10 CFR 2.390, we have determined that the enclosed RAI contains proprietary information. The proprietary information is indicated in brackets and underlines in Enclosure 1. We have prepared a Non-Proprietary version of the RAI (Enclosure 2) that does not contain Proprietary information. We will delay placing this document in the public document room for a period of ten (10) working days from the date of this letter to provide you with the opportunity to comment on the proprietary aspects only. If you believe that any additional information in the enclosure is proprietary, please identify such information line by line and define the basis pursuant to the criteria of 10 CFR 2.390 before the public release date of February 20, 2007.

To support the review schedule, you are requested to respond to this RAI question by March 2, 2007.

If you have any questions or comments concerning this matter, you may contact me at (301) 415-4115 or mcb@nrc.gov or you may contact Amy Cubbage at (301) 415-2875 or aec@nrc.gov.

Sincerely,

/RA/

Martha Barillas, Project Manager
ESBWR/ABWR Projects Branch 1
Division of New Reactor Licensing
Office of New Reactors

Docket No. 52-010

Enclosures: 1. Request for Additional Information (Proprietary)
2. Request for Additional Information (Non-Proprietary)

cc: See next page (w/o enclosure 1)

If you have any questions or comments concerning this matter, you may contact me at (301) 415-4115 or mcb@nrc.gov or you may contact Amy Cabbage at (301) 415-2875 or aec@nrc.gov.

Sincerely,

/RA/

Martha Barillas, Project Manager
ESBWR/ABWR Projects Branch 1
Division of New Reactor Licensing
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Docket No. 52-010

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2. Request for Additional Information (Non-Proprietary)

cc: See next page (w/o enclosure 1)

ACCESSION NO. ML070190313

OFFICE	NGE1/PM	NGE1/BC
NAME	MBarillas	MShuaibi
DATE	02/05/2007	02/05/2007

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Distribution for DCD RAI Letter No. 87 dated February 5, 2007

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Request for Additional Information (RAI) NEDC-33239P, “GE14 for ESBWR Nuclear Design Report”

RAI Number	Reviewer	Question Summary	Full Text
21.6-94	Yarsky P	PANAC11 isotopic tracking method	<p>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:</p> <p>A. Provide a list of the specific licensing analyses that rely on calculations performed using this methodology.</p> <p>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 [[]].</p> <p>C. Justify the dependence of the isotopic inventory on [[]].</p>

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