

August 22, 2006

Mr. David H. Hinds, Manager, ESBWR  
General Electric Company  
P.O. Box 780, M/C L60  
Wilmington, NC 28402-0780

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 55 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 enclosure to this letter. This RAI concerns the use of floor response spectra reduction factors in the seismic analysis described in Section 3.7 of the ESBWR design control document. A draft of this RAI was provided to you in our seismic audit summary dated August 8, 2006, available in the Agencywide Documents Access and Management System (ADAMS) under Accession Number ML062060412. Your staff did not request a telecon to discuss this RAI. You agreed to respond to this RAI on August 31, 2006.

If you have any questions or comments concerning this matter, you may contact me at (301) 415-2863 or [lwr@nrc.gov](mailto:lwr@nrc.gov) or you may contact Amy Cubbage at (301) 415-2875 or [aec@nrc.gov](mailto:aec@nrc.gov).

Sincerely,

**/RA/**

Lawrence Rossbach, Project Manager  
ESBWR/ABWR Projects Branch  
Division of New Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 52-010

Enclosure: As stated

cc: See next page

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ACCESSION NO. ML062330227

OFFICE	NESB/PM	NESB/BC(A)
NAME	LRossbach	JColaccino
DATE	08/22/2006	08/22/2006

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Distribution for DCD RAI Letter No. 55 dated August 22, 2006

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**Requests for Additional Information (RAIs)**  
**ESBWR Design Control Document (DCD) Section 3.7**

RAI Number	Reviewer	Question Summary	Full Text
3.7-58	Cheng T	Use of floor response spectra reduction factors.	During the discussion of General Electric's (GEs) response to RAI 3.7-44 at the on-site audit from June 5 to 8, 2006, GE indicated that before broadening the in-structure response spectra by $\pm 15$ percent, incoherence reduction factors, taken from ASCE 4-98, were applied to the raw spectrum results obtained from the time history analysis. The staff does not accept the incoherence reduction factors from ASCE 4-98. Therefore, the staff requests that GE submit an ESBWR specific technical basis for using the incoherence reduction factors.

Enclosure

ESBWR

cc:

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