

August 1, 2006

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

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 47 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 Conduct of Operations, Chapter 13, of Tier 2 of the ESBWR design control document. The RAI regarding Chapter 13, was sent to you via electronic mail on June 13, 2006. You did not request a telecon to discuss this RAI. You agreed to respond to this RAI by September 22, 2006.

If you have any questions or comments concerning this matter, you may contact me at (301) 415-207 or [lnq@nrc.gov](mailto:lnq@nrc.gov), Amy Cubbage at (301) 415-42875 or [aec@nrc.gov](mailto:aec@nrc.gov), Lawrence Rossbach at (301) 415-2863 or [lwr@nrc.gov](mailto:lwr@nrc.gov), or Martha Barillas at (301) 415-4115 or [mcb@nrc.gov](mailto:mcb@nrc.gov).

Sincerely,

**/RA/**

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

Docket No. 52-0010

Enclosure: As stated

cc: See next page

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ACCESSION NO. ML062080504

OFFICE	NESB/PM	NESB/BC(A)
NAME	LQuinones	JColaccino
DATE	08/01/2006	08/01/2006

OFFICIAL RECORD COPY

Distribution for DCD RAI Letter No. 47 dated August 1, 2006

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Request for Additional Information - ESBWR DCD Chapter 13

RAI Number	Reviewer Name	Question Summary	Full Text
13.3-1	Johnson D	Please provide more detail as to how the Technical Support Center (TSC) staffing size of 26 was determined.	Guidance for Technical Support Center (TSC) staffing size is found in NUREG-0654, Table B-1 and Section B.7, and NUREG-0696, Section 2.4. Appropriate supervisory positions are typically assigned to the emergency response organization (ERO) with oversight responsibility for the various functions/positions called out in NUREG-0654. The resultant TSC maximum staffing size may therefore be larger than 26 people. The TSC needs to be sized to accommodate augmented positions/functions as defined on NUREG-0654, Table B-1, and as defined in NUREG-0654 B.7, licensee specific supervisory positions in the ERO, and the NRC Response Team, i.e., TSC maximum staffing. Please provide more detail as to how the TSC staffing size of 26 was determined.
13.3-2	Johnson D	Please provide more detail as the proximity of the TSC to the Control Room and if any security barriers exist between the two facilities.	Guidance for locating the TSC is found in NUREG-0696 Section 2.2. The TSC is to be within 2-minutes walking time from the Control Room, and preferably in the same building. This 2-minutes does not include the time to do any required radiation protection gear but it does include the time to clear any security checkpoints. There should be no major security barriers between the TSC and the Control Room beyond normal access control stations. Please provide more detail as the proximity of the TSC to the Control Room and if any security barriers exist between the two facilities.
13.3-3	Johnson D	Please provide more detail as to the displays and instrumentation to be made available in the TSC.	Guidance for TSC displays and instrumentation is found in NUREG-0696, Sections 2.8 and 2.9, and NUREG-0654, Section H. The TSC requires the necessary equipment to monitor plant parameters for the determination of applicable emergency action levels and protective action recommendations. Please provide more detail as to the displays and instrumentation to be made available in the TSC.

Enclosure

13.3-4	Johnson D	Please provide more detail as to the backup power capabilities of the TSC.	Guidance for TSC backup power is found in NUREG-0696, Section 2.8 and NRC Information Notice (IN) 2004-19. Sufficient alternate or backup power sources shall be provided to maintain continuity of TSC functions and to immediately resume data acquisition, storage, and display of TSC data if loss of the primary TSC power sources occurs. Please provide more detail as to the backup power capabilities of the TSC.
13.3-5	Johnson D	Please provide more detail as to the level of radiological protection provided by the TSC ventilation system.	Guidance for TSC ventilation is found in NUREG-0696, Section 2.6. Please provide more detail as to the level of radiological protection provided by the TSC ventilation system.
13.3-6	Johnson D	Please provide details as to the applicability of RG 1.101 endorsed emergency action level (EAL) schemes to the ESBWR design.	The ESBWR design is sufficiently different from those plant designs used for the development of the RG 1.101 endorsed emergency action levels (EALs), (i.e., NUREG-0654, NESP-007, NEI 99-01 Rev. 4) that the applicability of these schemes to the ESBWR plant is in question. Please provide details as to the applicability of RG 1.101 EAL schemes to the ESBWR design.

ESBWR

cc:

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