November 14, 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. 81 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 Chapter 5 and 14 of the ESBWR Design Control Document. The Chapter 14 RAI questions were sent to you via electronic mail on October 31, 2006.

Chapter 5: 5.2-60
Chapter 14: 14.3-95 through 14.3-102

To support the review schedule, you are requested to respond to these RAI questions by December 22, 2006.

If you have questions or comments concerning Chapter 5 RAI please contact Shawn Williams at (301-415-3207) or saw8@nrc.gov, Chapter 14 RAI please contact Don Allen at (301) 415-1446 or dba@nrc.gov, or you may contact Amy Cubbage at (301) 415-2875 or aec@nrc.gov.

Sincerely,

/RA/

Shawn A. Williams, Project Manager
ESBWR/ABWR Projects Branch 1
Division of New Reactor Licensing
Office of New Reactors

Docket No. 52-010

Enclosure: As stated

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ACCESSION NO. ML063170230

OFFICE	NESB/PM	NESB/BC(A)
NAME	S.Williams	TKevern for M.Shuaibi
DATE	11/13/06	11/14/06

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Distribution for RAI Letter No. 81 dated November 14, 2006

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Request for Additional Information (RAIs)
ESBWR Design Control Document (DCD), Tier 2, Revision 1, Chapter 5 and 14

RAI Number	Reviewer	Question Summary	Full Text
5.2-60	Davis R	Provide a list and basis of all materials not meeting the requirements of CC-2511	Code Case N-634 has not been endorsed by the NRC staff. Provide a list of all materials that are attached to the containment liner that do not meet the provisions of CC-2511 regarding liner attachments. Provide a basis for using each material not meeting the requirements of CC-2511.
14.3-95	Patel P	Provide more detail of as-built construction of containment system	Item 1, Table 2.15.1: ASME Section III, Subsections NE and CC are relevant to the inspection and testing of the as-built construction of the containment system. Conformance to a sketch in Figure 2.15.1 does not cover any acceptance criterion related to the dimensions and tolerances of the major components of the as-built structure compared to the as-designed structure. The inspection of actual configurations of process piping, electrical conduits and containment penetrations should be parts of these inspections. Provide appropriate description of the acceptance criteria for the containment system components.
14.3-96	Patel P	Cite ASME required documents for stress reports	Item 2, Table 2.15.1: Cite ASME code required documents that will be used for inspection and acceptance criteria related to ASME Code Certified stress reports appropriate for this Tier 1 document.
14.3-97	Patel P	Add Type B and C tests for Containment in ITAAC	Item 4, Table 2.15.1: As these documents pertain to “Containment System,” performance of Type B and Type C tests should be part of this Table as an Inspections, Test, Analyses and Acceptance Criteria (ITAAC) item.
14.3-98	Patel P	Provide ITAAC for fuel building internal flooding	Section 2.16.7 Fuel building: Table 2.16.7-1, no specific ITAAC is specified for maintaining the pool water level and preventing internal flooding of the building from the pool overflow. Provide the ITAAC for the pool internal flooding requirements.

Request for Additional Information (RAIs)
ESBWR Design Control Document (DCD), Tier 2, Revision 1, Chapter 5 and 14

14.3-99	Patel P	Provide ITAAC for turbine building protection of main steam lines	Section 2.16.8 Turbine Building: No ITAACs have been specified for the structure as safety related portion of the main steam resides in the turbine building. Provide the ITAACs for the building structure protecting the main steam system.
14.3-100	Hartzman M	Provide specific ASME Code section in Table 2.15.1-1, Item 2	In Item 2, "Design Commitment," of Table 2.15.1-1, "ITAAC for Containment System," provide the specific sections of ASME Code, Section III, that contain the design requirements for the primary containment pressure boundary.
14.3-101	Hartzman M	Provide specific ASME Code section in Table 2.15.1-1, Item 5	In Item 5, "Inspections, Tests, Analysis," of Table 2.15.1-1, provide the specific section that contain the requirements and criteria for conducting a containment Structural Integrity Test.
14.3-102	Hartzman M	Provide specific ASME Code section in Table 2.15.4-1, Item 2	In Item 2, "Acceptance Criteria," of Table 2.15.4-1, provide the specific sections of ASME, Section III, that contain the requirements for hydrostatic tests of ASME Code Components.

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