

April 24, 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. 19 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 Instrumentation and Controls, Chapter 7 of Tier 2 of the ESBWR design control document. This RAI was sent to you via electronic mail on January 27, 2006, and resent on March 30, 2006. The RAIs were discussed with you during a telecon on March 24, 2006. You agreed to respond to these RAIs by May 15, 2006.

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

Sincerely,

/RA/

Lauren Quinones, Project Manager
New Reactor Licensing 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. ML061070037

OFFICE	NRBA/PM	NRBA/BC
NAME	LQuinones	LDudes
DATE	/ /2006	/ /2006

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Distribution for DCD RAI Letter No. 19 dated April 24, 2006

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Request for Additional Information - ESBWR DCD Chapter 7

RAI number	Reviewer	Question Summary	Full Text
7.5-3	Li H	Please update the DCD Tier 2, Section 7.5.1 and Table 7.5-1 to address the IEEE Std. 497-2002 criteria.	<p>Nuclear Regulatory Commission (NRC) has issued a draft regulatory guide DG-1128, "Criteria for Accident Monitoring Instrumentation for Nuclear Power Plants," in August, 2005. This document is expected to be issued as Revision 4 of Regulatory Guide 1.97, "Criteria for Accident Monitoring Instrumentation for Nuclear Power Plants," in Mid-2006. This regulatory guide endorses, with certain modifications explained in the regulatory position, IEEE Std. 497-2002, "IEEE Standard Criteria for Accident Monitoring Instrumentation for Nuclear Power Generating Stations," as an acceptable method for providing instrumentation to monitor variables for accident conditions. This revised regulatory guide is intended for applicant/licensees of new nuclear power plants. The staff has reviewed the ESBWR DCD, Tier 2, Section 7.5.1, "General I&C Conformance to Regulatory Guide 1.97," and Table 7.5-1, "Design and Qualification for Instrumentation." The staff finds that many criteria in the IEEE Std. 497-2002 recommendation have not been addressed in the ESBWR DCD. Please commit to update DCD Tier 2, Section 7.5.1 and Table 7.5-1, to address all the IEEE Std. 497-2002 criteria and the relevant requirements stated in RG 1.97, Revision 4, when published.</p>

RAI number	Reviewer	Question Summary	Full Text
7.5-4	Li H	Provide the post accident monitoring (PAM) systems design acceptance criteria (DAC) and Inspection, Tests, Analyses, and Acceptance Criteria (ITAAC) for staff review.	When digital systems are used for the post accident monitoring (PAM) function, the staff will follow review process described in the standard review plan (SRP) Chapter 7, Appendix 7.0-A, "Review Process for Digital Instrumentation and Control Systems." Discuss the ESBWR PAM systems software development process with respect to follow the SRP Chapter 7, BTP-14, "Guidance on Software Reviews for Digital Computer-Based Instrumentation and Control Systems." If the PAM system design is being deferred to the COL applicant, please provide the proposed design acceptance criteria (DAC) including the Inspection, Tests, Analyses, and Acceptance Criteria (ITAAC) for staff review.

ESBWR

cc:

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