

November 20, 2006

MEMORANDUM TO: File

FROM: Martha C. Barillas, Project Manager */RA/*  
ESBWR/ABWR Projects Branch 1  
Division of New Reactor Licensing  
Office of New Reactors

SUBJECT: ESBWR DESIGN CERTIFICATION REVIEW - SUMMARY OF  
TELEPHONE CALL HELD ON SEPTEMBER 12, 2006

This memorandum documents the telephone conference between the NRC staff and General Electric on September 12, 2006. A summary of the call held on this date is attached.

Attachment: As stated

Docket 52-010

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ADAMS ACCESSION NO. ML063200349

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NAME	MBarillas
DATE	11/20/06

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## Telephone Call Summary

Subject: Feedback to General Electric on ESBWR Design Certification Chapter 4 RAI responses contained in GE Letter MFN-06-297 (ML062480252)

Date of Call: September 12, 2006

### Participants

#### NRC

Martha Barillas  
Paul Clifford  
Amy Cabbage

#### GE

Russ Fawcett  
Dick Ossey  
Wayne Massie

Frostie White  
John Sorensen

### Referenced documents

<u>Accession Number</u>	<u>Title</u>	<u>Date</u>
ML062480252	Response to Portion of NRC Request for Additional Information Letter No. 53 related to ESBWR Design Certification Application	08/23/06

### Discussion

The NRC staff requested supplemental information on General Electric's (GE) responses to NRC Letter No. 53 Chapter 4.2 and 4.8 RAI questions. The NRC staff requested GE provide additional fuel rod mechanical test data than was provided for the fuel mechanical properties in RAI 4.2-2 and 4.2-4 responses. The NRC staff requested additional data to include testing temperatures encompassing the entire operating range for both fuel cladding and assembly components. The NRC staff informed GE it does not agree with GE's position that no specific oxide thickness and hydrogen concentration limits are required for the GE14E fuel assembly design, and informed GE that a limit should be specified in relation to the supporting mechanical testing database provided. The NRC staff requested GE update the DCD Tier 2, Appendix 4B section to specify Tier 2 and Tier 2\* fuel design requirements and remove the fuel design change process description that is currently described in the appendix and response to RAI 4.2-5. The NRC staff requested GE explain how it meets General Design Criteria 28 as described in RAI 4.2-6. The NRC staff expressed concern with GE's response to RAI 4.8-7 regarding lack of Flow Induced Vibration (FIV) test results for the GE14E fuel assembly design. The NRC staff requested GE provide scope of testing, the acceptance criteria description for the fuel design, and results of these future tests prior to fuel delivery. The NRC staff requested copies of the references provided in RAI 4.8-12 response. The NRC staff expressed concern with RAI 4.8-15 and RAI 4.8-16 responses with respect to fuel manufacturing and model uncertainties. The NRC staff finds the GSTRM UO<sub>2</sub> fuel thermal conductivity calculations to be non-conservative. NRC staff and GE agreed to have a future meeting to further discuss Chapter 4 fuel data and perform an audit of the fuel calculations.

Enclosure