

January 19, 2012

Mr. Jerald G. Head
Senior Vice President, Regulatory Affairs
GE Hitachi Nuclear Energy
3901 Castle Hayne Road MC A-18
Wilmington, NC 28401

SUBJECT: ECONOMIC SIMPLIFIED BOILING WATER REACTOR DESIGN CERTIFICATION
RULEMAKING SCHEDULE

Dear Mr. Head:

On November 15, 2011, we informed you that the staff was preparing the final Economic Simplified Boiling-Water Reactor (ESBWR) Design Certification (DC) rule package for submission to the U.S. Nuclear Regulatory Commission (NRC) and we provided a schedule for completing the ESBWR rulemaking. We estimated delivery of the rule to the Commission in January 2012 and, provided the Commission affirmed the final certification, publication in May 2012.

Through the NRC's review of the Grand Gulf Extended Power Uprate (EPU), issues have been identified that are relevant to the conclusions in the staff's March 9, 2011, Final Safety Evaluation Report (FSER) issued in support of the ESBWR DC rulemaking. Specifically, errors have been identified in the benchmarking GE Hitachi (GEH) used as a basis for determining fluctuating pressure loading on the steam dryer, and errors have been identified in a number of GEH's modeling parameters. These errors may affect the conclusions in the staff's FSER and need to be addressed before we complete the ESBWR DC. This information has resulted in the need to revisit the previously communicated rulemaking schedule.

The staff's FSER for ESBWR relied on GEH licensing topical reports (LTRs) NEDE-33312P-A, "ESBWR Steam Dryer Acoustic Load Definition," Revision 2, NEDE-33313P-A, "ESBWR Steam Dryer Structural Evaluation," Revision 2, NEDC-33408P-A, "ESBWR Steam Dryer – Plant Based Load Evaluation Methodology," Revision 1, and NEDC-33408 Supplement 1P-A "ESBWR Steam Dryer – Plant Based Load Evaluation Methodology," Revision 2. The issues identified during the Grand Gulf EPU may affect the basis for the staff's approval of these LTRs and, accordingly, the basis for the staff's ESBWR safety evaluation. These issues are described in more detail in the enclosure.

Document transmitted herewith contains sensitive unclassified information. When separated from the enclosures, this document is "DECONTROLLED."

J. Head

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Pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) 2.390, we have determined that enclosure 2 contains proprietary information. We have prepared a non-proprietary version of the enclosure (Enclosure 1) that does not contain proprietary information. The proprietary information is indicated in brackets and underlined in Enclosure 2. We will delay placing enclosure 1 in the public document room for a period of 10 working days from the date of this letter to provide you with the opportunity to comment on the proprietary aspects only. If you believe that any additional information in the enclosure is proprietary, please identify such information line by line and define the basis pursuant to the criteria of 10 CFR 2.390 before the public release date.

The staff will schedule a meeting with GEH at the earliest opportunity to discuss your path forward for resolution of these issues, and the impact on rulemaking.

Sincerely,

/RA/

Michael E. Mayfield, Director
Division of Advanced Reactors and Rulemaking
Office of New Reactors

Docket No. 52-010

Enclosures:

1. ESBWR technical issues (Non-Proprietary)
2. ESBWR technical issues (Proprietary)

cc: DC GEH - ESBWR Mailing List (w/o enclosure 2)

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DC GEH - ESBWR Mailing List

(Revised 11/16/2011)

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