

October 19, 2010

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

SUBJECT: FINAL SAFETY EVALUATION FOR CHAPTER 18 "HUMAN FACTORS
ENGINEERING" REGARDING THE ECONOMIC SIMPLIFIED BOILING WATER
REACTOR (ESBWR) DESIGN CERTIFICATION REVIEW

Dear Mr. Head:

The U.S. Nuclear Regulatory Commission staff is preparing a safety evaluation (SE) for each chapter of the ESBWR design certification application submitted by GE- Hitachi Nuclear Energy (GEH) on August 24, 2005.

The staff's SE for Chapter 18 was previously provided to the Advisory Committee on Reactor Safeguards (ACRS) ESBWR Design-Centered Subcommittee to support the meeting held on August 17, 2010. The ACRS Full Committee meeting was held on October 7, 2010.

The enclosed SEs are being provided only to GEH for review of proprietary information pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) 2.390 "Public Inspections, Exemptions, Requests for Withholding." The staff concludes that the Chapter 18 SE contains proprietary information and has prepared proprietary and nonproprietary versions of the Chapter 18 SE accordingly.

The staff concludes that the nonproprietary version of the Chapter 18 SE does not contain any information for which exemption from public disclosure has been sought or approved or any factual errors. However, the NRC will withhold the nonproprietary version of the Chapter 18 SE from public disclosure for ten working days from the date of this letter to allow you the opportunity to verify the staff's conclusion that the SE contains no such exempt information or any factual errors. If within that ten day period, you do not request that all or portions of the SE be withheld from public disclosure, the nonproprietary version of the Chapter 18 SE will be made available for public inspection through the NRC Public Document Room and the Publicly Available Records component of NRC's Agencywide Documents Access and management System (ADAMS).

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

The staff has marked the proprietary version of the Chapter 18 SE for proprietary information. The staff also concludes that the proprietary version of the Chapter 18 SE does not contain any factual errors. If you believe that any additional information in the proprietary version of the Chapter 18 SE is proprietary, please identify such information line by line and define the basis pursuant to the criteria of 10 CFR 2.390.

If you have any question or comments concerning this matter, I can be reached at 301-415-2875 or via e-mail address at amy.cubbage@nrc.gov.

Sincerely,

/RA/

Amy Cubbage, Lead Project Manager
BWR Projects Branch
Division of New Reactor Licensing
Office of New Reactors

Docket No. 52-010

Enclosure:

1. Chapter 18 Safety Evaluation (Non-Proprietary)
2. Chapter 18 Safety Evaluation (Proprietary)

cc: See next page (w/o enclosure)

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If you have any question or comments concerning this matter, I can be reached at 301-415-2875 or via e-mail address at amy.cubbage@nrc.gov.

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/RA/

Amy Cubbage, Lead Project Manager
BWR Projects Branch
Division of New Reactor Licensing
Office of New Reactors

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ADAMS Accession Numbers:
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SUBJECT: ADVANCED FINAL SAFETY EVALUATION FOR CHAPTER 18 "HUMAN FACTORS ENGINEERING" REGARDING THE ECONOMIC SIMPLIFIED BOILING WATER REACTOR (ESBWR) DESIGN CERTIFICATION REVIEW DATED OCTOBER 19, 2010

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(Revised 08/11/2010)

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