September 13, 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 GE-HITACHI NUCLEAR ENERGY LICENSING TOPICAL REPORT NEDE-33083P, SUPPLEMENT 1, "TRACG APPLICATION FOR ESBWR STABILITY"

Dear Mr. Head:

On August 24, 2005, GE-Hitachi (GEH) Nuclear Energy submitted the Economic Simplified Boiling-Water Reactor (ESBWR) design certification application to the staff of the U.S. Nuclear Regulatory Commission (NRC). Subsequently, in support of the design certification, GEH submitted the license topical report (LTR) NEDE-33083P, Supplement 1, "TRACG Application for ESBWR Stability." The staff has now completed its review of NEDE-33083P, Supplement 1.

The staff finds NEDE-33083P, Supplement 1, "TRACG Application for ESBWR Stability," acceptable for referencing for the ESBWR design certification to the extent specified and under the limitations delineated in the LTR and in the associated safety evaluation (SE). The SE, which is enclosed, defines the basis for acceptance of the LTR.

The staff requests that GEH publish the revised version of the LTR listed above within 1 month of receipt of this letter. The accepted version of NEDE-33083P, Supplement 1, shall incorporate this letter and the enclosed SE and add an "-A" (designated accepted) following the report identification number.

If NRC's criteria or regulations change, so that its conclusion that the LTR is acceptable is invalidated, GEH and/or the applicant referencing the LTR will be expected to revise and resubmit its respective documentation, or submit justification for continued applicability of the LTR without revision of the respective documentation.

The staff concludes that the SE does not contain any information for which exemption from public disclosure has been sought or approved. However, the NRC will withhold the SE from public disclosure for ten calendar days to allow GEH the opportunity to verify the staff's conclusion that the SE contains no such exempt information.

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

The Advisory Committee on Reactor Safeguards (ACRS) subcommittee, having reviewed the subject LTR and supporting documentation, agreed with the staff's recommendation for approval following the August 16, 2010 ACRS subcommittee meeting.

Sincerely,

***/RA Frank Akstulewicz for:/***

David B. Matthews, Director
Division of New Reactor Licensing
Office of New Reactors

Docket No. 52-010

Enclosure: Final Safety Evaluation

The Advisory Committee on Reactor Safeguards (ACRS) subcommittee, having reviewed the subject LTR and supporting documentation, agreed with the staff's recommendation for approval following the August 16, 2010 ACRS subcommittee meeting.

Sincerely,

***/RA Frank Akstulewicz for:/***

David B. Matthews, Director
Division of New Reactor Licensing
Office of New Reactors

Docket No. 52-010

Enclosure: Final Safety Evaluation

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