HITACHI

GE Hitachi Nuclear Energy

James C. Kinsey
Vice President, ESBWR Licensing

PO Box 780 M/C A-55
Wilmington, NC 28402-0780
USA

T 910 675 5057
F 910 362 5057
jim.kinsey@ge.com

MFN 08-086, Supplement 40

Docket No. 52-010

May 2, 2008

U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, D.C. 20555-0001

Subject: **Response to Portion of NRC Request for Additional Information Letter No. 126 Related to ESBWR Design Certification Application RAI Number 14.3-348**

The purpose of this letter is to submit the GE Hitachi Nuclear Energy (GEH) Response to the U.S. Nuclear Regulatory Commission (NRC) Request for Additional Information (RAI) sent by NRC letter dated December 20, 2007 (Reference 1).

Enclosure 1 contains the GEH response to RAI Number 14.3-348. The enclosed changes will be incorporated in the upcoming DCD Revision 5 submittal.

Verified DCD changes associated with this RAI response are identified in the enclosed DCD markups by enclosing the text within a black box. The marked-up pages may contain unverified changes in addition to the verified changes resulting from this RAI response. Other changes shown in the markups may not be fully developed and approved for inclusion in DCD Revision 5.

If you have any questions or require additional information, please contact me.

Sincerely,

James C. Kinsey

James C. Kinsey
Vice President, ESBWR Licensing

D068
NRO

Reference:

1. MFN 07-718, Letter from U.S. Nuclear Regulatory Commission to Robert E. Brown, *Request For Additional Information Letter No. 126 Related To ESBWR Design Certification Application*, December 20, 2007.

Enclosure:

1. Response to Portion of NRC Request for Additional Information Letter No. 126 Related to ESBWR Design Certification Application – RAI Number 14.3-348

cc: AE Cubbage USNRC (with enclosure)
GB Stramback GEH/San Jose (with enclosure)
RE Brown GEH/Wilmington (with enclosure)
DH Hinds GEH/Wilmington (with enclosure)
eDRF 0000-0081-3372 – RAI 14.3-348

MFN 08-086, Supplement 40

Enclosure 1

Response to Portion of NRC Request for Additional Information Letter No. 126 Related to ESBWR Design Certification Application

RAI Number 14.3-348

VERIFIED DCD CHANGES ASSOCIATED WITH THIS RAI RESPONSE ARE IDENTIFIED IN THE ENCLOSED DCD MARKUPS BY ENCLOSING THE TEXT WITHIN A BLACK BOX. THE MARKED-UP PAGES MAY CONTAIN UNVERIFIED CHANGES IN ADDITION TO THE VERIFIED CHANGES RESULTING FROM THIS RAI RESPONSE. OTHER CHANGES SHOWN IN THE MARKUP(S) MAY NOT BE FULLY DEVELOPED AND APPROVED FOR INCLUSION IN DCD REVISION 5.

NRC RAI 14.3-348

NRC Summary:
RCIS interfacing systems

NRC Full Text:
For ITAAC Table 2.2.1-6 Item 3, the ITA & AC are not consistent with the DC regarding interfacing systems. The staff requests that the applicant modify the ITA and AC to include a verification of the associated interfacing systems specified in Table 2.2.1-3. In addition, the AC should include verification of that the list of systems identified as interfaces in Table 2.2.1-3 is a complete list. The applicant should confirm that there are other ITAAC to verify the functional performance of the associated interfacing systems.

GEH RESPONSE

DCD Tier 1, Rev. 4, ITAAC Table 2.2.1-6 Item 3 will be revised to include a verification of the associated interfacing systems specified in Table 2.2.1-3.

DCD IMPACT

DCD Tier 1, Rev. 4, Table 2.2.1-6 Item 3, will be revised as noted in the attached markup.

Table 2.2.1-6

ITAAC For Rod Control and Information System

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
1. RC&IS functional arrangement is defined in Table 2.2.1-1.	Test(s) and inspection(s) of the as-built system will be performed.	Test and inspection report(s) document that the as-built system conforms with the functional arrangement defined in Table 2.2.1-1.
2. RC&IS is divided into major functional groups as defined in Table 2.2.1-2.	Test(s) and inspection(s) of the as-built system will be performed.	Test and inspection report(s) document that the as-built system is divided into major functional ~~areas~~ groups ~~functions~~ as defined in Table 2.2.1-2.
3. RC&IS automatic functions, initiators, and associated interfacing systems are defined in Table 2.2.1-3.	a. ~~Test(s) and type test(s) will be performed on the as-built system using simulated signals.~~Inspections will be performed to verify that the as-built RC&IS system conforms with the automatic functions, initiators, and associated interfacing systems defined in Table 2.2.1-3. b. Test(s) and type test(s) will be performed on the as-built system using simulated signals initiated from all of the associated interfacing as-built systems specified in Table 2.2.1-3.	a. ~~Test and type test report(s) document the system is capable of performing the functions defined in Table 2.2.1-3.~~ Inspection report(s) document that the as-built RC&IS system conforms with the automatic functions, initiators, and associated interfacing systems defined in Table 2.2.1-3. b. Test and type test report(s) document the system is capable of performing the functions defined in Table 2.2.1-3 using simulated signals initiated from all of the associated interfacing as-built systems specified in Table 2.2.1-3.