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U.S. Nuclear Regulatory Commission
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Subject: **Response to Portion of NRC Request for Additional Information Letter No. 70 Related to ESBWR Design Certification Application RAI Number 14.3-75**

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 October 10, 2006. (Reference 1).

Enclosure 1 contains the GEH response to RAI Number 14.3-75.

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

Sincerely,

James C. Kinsey
Vice President, ESBWR Licensing

D068
NRO

Reference:

1. MFN 06-382, Letter from U.S. Nuclear Regulatory Commission to Robert E. Brown, *Request For Additional Information Letter No. 70 Related To ESBWR Design Certification Application*, October 10, 2006.

Enclosure:

1. Response to Portion of NRC Request for Additional Information Letter No. 70 Related to ESBWR Design Certification Application – RAI Number 14.3-75

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 0000-0081-0533 – RAI 14.3-75

Enclosure 1

MFN 08-244

Response to a Portion of NRC Request for Additional Information Letter No. 70 Related to ESBWR Design Certification Application Software Design Development RAI Numbers 14.3-75

NRC RAI 14.3-75

The digital I&C system design development process, as documented in the certified design's DCD should be addressed to the greatest extent possible in the COL application.
Some activities can be performed during pre-COL application stage, some activities can only be performed after equipment is purchased and tested.
Therefore, the software development ITAAC should clearly identify which activities will be perform before COL license stage, and which activities will be performed after COL license.
For those activities to be performed by the COL licensee, the COL action requirements should be specified in the DCD.

GEH Response

RAI 14.3-75 has been superseded by RAI 14.3-210. GEH is interfacing with the NRC on the treatment of Design Acceptance Criteria ITAAC for digital instrumentation and control, human factors engineering, and piping, and the results of these interactions will address the issues. The NRC informed GEH in a meeting April 22, 2008, that it would issue a supplement to RAI 14.3-210. For the ESBWR, the Design Acceptance Criteria ITAAC in these areas will be completed after the issuance of the COL, during construction activities for the first ESBWR plant. It is expected that subsequent COL licensees will use the information developed for closing the Design Acceptance Criteria ITAAC for the first plant, until such time that the technology may evolve and a new design may be forthcoming. Please refer to the GEH response to RAI 14.3-210 and its supplement for additional details.

DCD Impact

No DCD change is made in response to this RAI. RAI 14.3-210 is related and the GEH response to RAI 14.3-210 may involve changes to the DCD.