



HITACHI

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MFN 10-097

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

Subject: **Response to NRC Request for Additional Information Letter No. 410 Related to ESBWR Design Certification Application - Qualification of Batteries- RAI 8.3-68**

Enclosure 1 contains the GE Hitachi Nuclear Energy (GEH) response to the U.S. Nuclear Regulatory Commission (NRC) Request for Additional Information (RAI) 8.3-68 (Reference 1).

If you have any questions about the information provided, please contact me.

Sincerely,

A handwritten signature in cursive script that reads "Richard E. Kingston".

Richard E. Kingston
Vice President, ESBWR Licensing

Reference:

1. MFN 10-095, Letter from the U.S. Nuclear Regulatory Commission to Jerald G. Head, Request for Additional Information Letter No. 410, Related To Design Control Document Revision 6, dated March 3, 2010

Enclosure:

1. Response to NRC Request for Additional Information Letter No. 410 Related to Design Certification Application - RAI Number 8.3-68 Response and DCD Markups

cc: AE Cabbage USNRC (with enclosures)
J G Head GEH/Wilmington (with enclosures)
DH Hinds GEH/Wilmington (with enclosures)
PM Yandow GEH/Wilmington (with enclosures)
eDRF Section 0000-0115-0955 (RAI 8.3-68)

Enclosure 1

MFN 10-097

**Response to NRC Request for
Additional Information Letter No. 410
Related to ESBWR Design Certification Application**

**RAI Number 8.3-68
Response and DCD Markups**

NRC RAI 8.3-68

Designate NEDE-33516P, "ESBWR Qualification Plan Requirements for a 72-Hour Duty Cycle Battery," as Tier 2. The staff has determined that this document will be used to qualify safety-related batteries for extended duty cycles for which there is no operational experience. The results from the test will provide reasonable assurance that the equipment will perform its safety function.*

GEH Response

NEDE-33516P will be designated as Tier 2*. The revision number of this LTR in Tier 2 Table 1.6-1 will also be updated to the current revision.

DCD Impact

DCD Tier 2, Table 1.6-1 and Section 3.11.8 will be revised as noted in the attached markups.

The COL Applicant will provide a full description and a milestone for program implementation of the environmental qualification program that includes completion of the plant-specific EQD per Subsection 3.11.4.4.

3.11-2-H Environmental Qualification Records (Deleted)

3.11.8 References

- 3.11-1 USNRC, Standard Review Plan, NUREG-0800, SRP 3.11, Revision 3, March 2007, “Environmental Qualification of Mechanical and Electrical Equipment.”
- 3.11-2 USNRC, Code of Federal Regulations, Title 10, Chapter I, Part 50, Paragraph 50.49, “Environmental Qualification of Electric Equipment Important to Safety for Nuclear Power Plants.”
- 3.11-3 General Electric Co., “General Electric Environmental Qualification Program,” NEDE-24326-1-P, Proprietary Document, January 1983.
- 3.11-4 Regulatory Guide 1.209, “Guidelines for Environmental Qualification of Safety-Related Computer-Based Instrumentation and Control Systems in Nuclear Power Plants,” March 2007.
- 3.11-5 NUREG 0588, USNRC, “Interim Staff Position on Environmental Qualification of Safety-Related Electrical Equipment,” December 1979.

3.11-6 [*GE Hitachi Nuclear Energy, “ESBWR Qualification Plan Requirements for a 72-Hour Duty Cycle Battery,” NEDE-33516P Revision-02, Proprietary Document, ~~July~~ December 2009.*]*

* The reference that is bracketed and italicized with an asterisk following the brackets is designated as Tier 2*. Prior NRC approval is required to change Tier 2* information

Table 1.6-1
Referenced GE / GEH Reports

Report No.	Title	Section No.
NEDC-33408P Supplement 1 NEDO-33408 Supplement 1	GE Hitachi Nuclear Energy, “ESBWR Steam Dryer – Plant Based Load Evaluation Methodology,” NEDC-33408P Supplement 1, Class III (Proprietary), and NEDO-33408 Supplement 1, Class I (Non-proprietary), Revision 1, August 2009 October 2008	3L
NEDO-33411	GE Hitachi Nuclear Energy, “Risk Significance of Structures, Systems and Components for the Design Phase of the ESBWR,” NEDO-33411, Class I (Non-proprietary), Revision 1, July 2009.	17.4
NEDE-33440P NEDO-33440	GE Hitachi Nuclear Energy “ESBWR Safety Analysis – Additional Information,” NEDE-33440P, Class III (Proprietary), and NEDO-33440, Class I (Non-proprietary), Revision 2 , March 2010 June 2009 .	3.6 , 6.2
NEDC-33456P NEDO-33456	<i>[Global Nuclear Fuel, “Full-Scale Pressure Drop Testing for a Simulated GE14E Fuel Bundle,” NEDC-33456P, Class III (Proprietary), and NEDO-33456, Class I (Non-proprietary), Revision 0, March 2009.]*</i>	4.4
NEDE-33516P	<i>[GE Hitachi Nuclear Energy, “ESBWR Qualification Plan Requirements for a 72-Hour Duty Cycle Battery,” NEDE-33516P, Class III (Proprietary), Revision 2, December July 2009.]*</i>	3.11
NEDE-33536P NEDO-33536	[GE-Hitachi Nuclear Energy, “Control Building and Reactor Building Environmental Temperature Analysis for ESBWR,” NEDE-33536P, Class III (Proprietary), Revision 0, December 2009, NEDO-33536, Class I (Non-proprietary), Revision 0, December 2009.]*	3H

* References that are bracketed and italicized with an asterisk following the brackets are designated as Tier 2*. Prior NRC approval is required to change Tier 2* information.