



HITACHI

GE Hitachi Nuclear Energy

Richard E. Kingston
Vice President, ESBWR Licensing

PO Box 780 M/C A-65
Wilmington, NC 28402-0780
USA

T 910 819 6192
F 910 362 6192
rick.kingston@ge.com

MFN 09-638

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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. 367 Related to ESBWR Design Certification Application – Technical Specifications – RAI Number 16.2-50 S02**

Enclosures 1 and 2 contain the GE Hitachi Nuclear Energy (GEH) response to the subject NRC RAI transmitted via the Reference 1 letter.

If you have any questions or require additional information regarding the information provided here, please contact me.

Sincerely,

Richard E. Kingston

Richard E. Kingston
Vice President, ESBWR Licensing

*DOB8
NRC*

Reference:

1. MFN 09-597, Letter from U.S. Nuclear Regulatory Commission to Jerald G. Head, *Request for Additional Information Letter No. 367 Related to ESBWR Design Certification Application*, September 11, 2009

Enclosures:

1. MFN 09-638 – Response to Portion of NRC Request for Additional Information Letter No. 343 Related to ESBWR Design Certification Application – Technical Specifications – RAI Number 16.2-50 S02
2. MFN 09-638 – DCD Markups for RAI Number 16.2-50 S02

cc: AE Cabbage USNRC (with enclosures)
JG Head GEH (with enclosures)
DH Hinds GEH (with enclosures)
JD Friday GEH (with enclosures)
eDRF 108-3773

Enclosure 1

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**Response to Portion of NRC Request for
Additional Information Letter No. 367
Related to ESBWR Design Certification Application
- Technical Specifications -
RAI Number 16.2-50 S02**

NRC RAI 16.2-50 S02

The staff requested GEH to provide additional justification, other than "engineering judgment," for the 60-month Frequency of Surveillance Requirement (SR) 3.6.3.1.5, to verify Reactor Building exfiltration rate within limits. The staff did not find that GEH's response (MFN 07-022) to RAI 16.2-50 provided sufficient justification for the 60-month Frequency. Reactor Building integrity inspections and a lack of a standby gas treatment (SGT) system to automatically filter the atmosphere of the ESBWR Reactor Building Contaminated Area Ventilation Subsystem (CONAVS) area following a design basis accident are not justifications for only verifying the Reactor Building CONAVS area exfiltration rate within limits once per 60 months (potentially up to 75 months between consecutive tests). Therefore, GEH is requested to either provide additional justification, other than "engineering judgment," for the 60-month Frequency, or revise the Frequency of GTS SR 3.6.3.1.5 to 24 months, and strengthen the bases to be consistent with the bases for the cyclic Frequency of the equivalent surveillance for secondary containment boundary integrity in BWR/4 and BWR/6 standard TS SR 3.6.4.1.5: "Operating experience has shown the [secondary] containment boundary usually passes these Surveillance[s] when performed at the [18] month Frequency. Therefore, the Frequency was concluded to be acceptable from a reliability standpoint."

GEH Response

The Frequency for GTS SR 3.6.3.1.5 will be revised to 24 months and conforming changes will be incorporated in the associated Bases, as requested in the RAI.

DCD Impact

DCD Chapters 16 and 16B will be revised as shown in Enclosure 2

Enclosure 2

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**DCD Markups for
RAI Number 16.2-50 S02**

Reactor Building (CONAVS Area)
3.6.3.1

SURVEILLANCE		FREQUENCY
SR 3.6.3.1.4	Verify Reactor Building (CONAVS area) boundary isolation dampers actuate on an actual or simulated isolation signal.	24 months
SR 3.6.3.1.5	Verify Reactor Building (CONAVS area) exfiltration rate within limits.	60 24 months

BASES

SURVEILLANCE REQUIREMENTS (continued)

SR 3.6.3.1.5

This SR requires periodic verification that the RB (CONAVS area) exfiltration (leakage) rate is less than the limit, which is based on the assumptions in the radiological evaluations. ~~The 60-month Frequency is based on engineering judgment~~ Operating experience has shown that containment boundary designs similar to the RB (CONAVS area) boundary usually pass this Surveillance when performed at the 24-month Frequency. Therefore, the Frequency was concluded to be acceptable from a reliability standpoint.

REFERENCES

1. Chapter 6.
 2. Chapter 15.
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