

GE-Hitachi Nuclear Energy Americas LLC

James C. Kinsey
Project Manager, 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 07-455, Supplement 1

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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. 101 Related to ESBWR Design Certification Application,
RAI Number 22.5-18(Amended).**

The purpose of this letter is to submit the GE-Hitachi Nuclear Energy Americas LLC (GEH) response to the U.S. Nuclear Regulatory Commission (NRC) Request for Additional Information (RAI) sent by NRC letter dated June 21, 2007 and responded to on August 23, 2007. Based on a phone call with the NRC Staff on September 18, 2007 GEH is amending the response to RAI Number 22.5-18 to clarify its meaning. The amended response is in Enclosure 1.

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

Sincerely,



James C. Kinsey
Project Manager, ESBWR Licensing



Reference:

1. MFN 07-357, Letter from U.S. Nuclear Regulatory Commission to Robert E. Brown, *Request for Additional Information Letter No. 101 Related to ESBWR Design Certification Application*, June 21, 2007.
2. MFN07-455. *Response to Portion of NRC Request for Additional Information Letter No. 101 Related to ESBWR Design Certification Application, RAI Numbers 19.1-150, 19.1-151, 22.5-12 through 22.5-14, 22.5-17 and 22.5-18*. August 23, 2007.

Enclosure:

1. Response to Portion of NRC Request for Additional Information Letter No. 101 Related to Regulatory Treatment of Non-Safety Systems (RTNSS) RAI Number 22.5-18(Amended).

cc: AE Cabbage USNRC (with enclosure)
 GB Stramback GEH/San Jose (with enclosure)
 RE Brown GEH/Wilmington (with enclosure)
 eDRF Section 0000-0074-7857

Enclosure 1

MFN 07-455, Supplement 1

**Response to Portion of NRC Request for
Additional Information Letter No. 101
Related to ESBWR Design Certification Application
Regulatory Treatment of Non-Safety Systems (RTNSS)
RAI Number 22.5-18(Amended)**

NRC RAI 22.5-18

Section 19A.8.4.10, Component Cooling - HVAC, Cooling Water, Chilled Water, and Plant Service Water, states that no explicit availability controls are supplied for these support systems. Discuss the basis for this determination.

GEH Response (Original)

In accordance with DCD Tier 2 Section 19A.8.1, regulatory oversight is applied to each system designated as RTNSS to ensure that it has sufficient reliability and availability to perform its RTNSS function, as defined either by the focused PRA, or by deterministic criteria. The extent of oversight is commensurate with the safety significance of the RTNSS function, and is categorized as High Regulatory Oversight (HRO), Low Regulatory Oversight (LRO), or Support. If the focused PRA analysis determines that a RTNSS system is significant to public health and safety (that is, necessary to meet the NRC safety goals) then it is classified as HRO and a Technical Specification Limiting Condition for Operation is established for the system/component, in accordance with 10 CFR 50.36. If a RTNSS system is not significant, as described above, then the proposed level of regulatory oversight is Low Regulatory Oversight (LRO), which is addressed in regulatory availability specifications, which are described in the Availability Control Manual. In addition, systems designated as “support” have low risk significance and they provide support (generally component and room cooling) for RTNSS systems that provide active mitigation functions. Treatment of support systems relative to the systems they support is described in the Availability Control Manual (ACM.)

Guidance in the ACM states that when supported system availability controls are not met solely because a support system’s availability controls are not being met, then the conditions and required actions associated with this supported system do have to be entered. Only the support system’s actions are required to be entered.

If a support system becomes degraded, but does not affect the availability of a supported system, then this condition is considered to be less significant. In either case, in accordance with 10 CFR 50.65(a)(4), a risk evaluation is performed in accordance with the Maintenance Rule Program. If the risk is determined to be unacceptable, then appropriate actions must be taken to manage that risk.

DCD/NEDO-33201 Impact

No DCD changes will be made in response to this RAI.

No changes to NEDO-33201 will be made in response to this RAI.

GEH Response (Amended)

In accordance with DCD Tier 2 Section 19A.8.1, regulatory oversight is applied to each system designated as RTNSS to ensure that it has sufficient reliability and availability to perform its RTNSS function, as defined either by the focused PRA, or by deterministic criteria. The extent of oversight is commensurate with the safety significance of the RTNSS function, and is categorized as High Regulatory Oversight (HRO), Low Regulatory Oversight (LRO), or Support. If the focused PRA analysis determines that a RTNSS system is significant to public health and safety (that is, necessary to meet the NRC safety goals) then it is classified as HRO and a Technical Specification Limiting Condition for Operation is established for the system/component, in accordance with 10 CFR 50.36. If a RTNSS system is not significant, as described above, then the proposed level of regulatory oversight is Low Regulatory Oversight (LRO), which is addressed in regulatory availability specifications, which are described in the Availability Control Manual. In addition, systems designated as "support" have low risk significance and they provide support (generally component and room cooling) for RTNSS systems that provide active mitigation functions. Treatment of support systems relative to the systems they support is described in the Availability Control Manual (ACM.)

Guidance in the ACM states that if supported system availability controls are not met because a support system's availability controls are not being met, then the supported system's actions are entered.

If a support system becomes degraded, but does not affect the availability of a supported system, then this condition is considered to be less significant. In either case, in accordance with 10 CFR 50.65(a)(4), a risk evaluation is performed in accordance with the Maintenance Rule Program. If the risk is determined to be unacceptable, then appropriate actions must be taken to manage that risk.

DCD/NEDO-33201 Impact

No DCD changes will be made in response to this RAI.

No changes to NEDO-33201 will be made in response to this RAI.