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MFN 07-330 S01

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**Subject: Response to Portion of NRC Request for Additional Information  
Letter No. 100 Related to ESBWR Design Certification Application,  
Inclusion of RTNSS Into Tier 1, RAI 14.3-151S01**

Enclosure 1 contains GEH's response to Supplement 1 to the original 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,



James C. Kinsey  
Project Manager, ESBWR Licensing

*DO68*  
NKO

Reference:

1. MFN 07-327, Letter from U.S. Nuclear Regulatory Commission to David Hinds, *Request for Additional Information Letter No. 100 Related to ESBWR Design Certification Application*, May 30, 2007.

Enclosure:

1. MFN 07-330 S01, Response to a Portion of NRC Request for Additional Information Letter No. 100, Related to ESBWR Design Certification Application, Inclusion of RTNSS Into Tier 1, RAI Number 14.3-151S01.

cc: AE Cubbage USNRC (with enclosures)  
DH Hinds GEH (with enclosures)  
RE Brown GEH (w/o enclosures)  
eDRF 0000-0069-2944

**ENCLOSURE 1**

**MFN 07-330 S01**

**Response to a Portion of NRC Request for,  
Additional Information Letter No. 100,  
Related to ESBWR Design Certification Application,  
Inclusion of RTNSS Into Tier 1  
RAI Number 14.3-151 S01**

**NRC RAI 14.3-151**

*Revise DCD Tier 1, Revision 3, Section 2.0, "Design Descriptions and ITAAC," to include the following:*

- *Diesel generator fuel oil storage and transfer system.*
- *Diesel generator jacket cooling water system*
- *Diesel generator starting air system*
- *Diesel generator lubrication system*
- *Diesel generator combustion air intake and exhaust system*

**Response to RAI 14.3-151**

This RAI request could be applicable to a nuclear power plant with active safety-related equipment, such as electrically powered ECCS pumps. The current Standard Review Plan is based on nuclear power plants with active safety-related equipment. However, for a passive plant, like the ESBWR, all diesel generators are nonsafety-related, and not needed to mitigate any design basis abnormal event. As a result, the listed auxiliary systems for the ESBWR are nonsafety-related.

Like the diesel generators (see Tier 1 Subsection 2.13.4), no ITAAC can be developed for any of the listed auxiliary systems that would meet the ITAAC inclusion criteria in Tier 2 Subsection 14.3.7.

**DCD Impact:**

No DCD change will be made as a result of this RAI.

**NRC RAI 14.3-151 S01**

*e-mail request from Chandu Patel.*

*In the response to NRC RAI 14.3-151, dated June 20, 2007, regarding the inclusion of diesel generator (DG) supporting systems (fuel oil storage and transfer system, jacket cooling water system, starting air system, lubrication system and combustion air intake and exhaust system) in DCD Tier 1, Revision 3, Section 2.0, A Design Descriptions and ITAAC, GE stated that no ITAAC can be developed for any of the above cited DG supporting systems that would meet the ITAAC inclusion criteria in Tier 2 Subsection 14.3.7. Therefore, no DCD change will be made to include these systems in ITAAC.*

*In the response dated January 30, 2007, to the staff's RAI 19.1.0-2 regarding RTNSS, GE included the DG units as RTNSS systems. Also, DCD, Revision 3, Section 14.3.7.3 states that RTNSS systems shall have Tier 1 inputs that include design descriptions and ITAAC. Therefore, DCD Tier 1, Revision 3, Section 2.0, A Design Descriptions and ITAAC, should be revised to include the above cited DG supporting systems.*

**Response to RAI 14.3-151 S01**

GEH has initiated a RTNSS update to Tier 1 to assure that Tier 1 addresses RTNSS, consistent with the criteria within Tier 2 Section 14.3.7. This update addresses the RTNSS equipment and functions addressed in Tier 2 Appendix 19A. The DG system is included in the update. Like the AP1000, the ESBWR DG ITAAC will encompass the functions of most its support systems, because the DG function and the ITAAC related testing cannot be successful without the support systems functioning properly. The exception is that the capacity of the Fuel Oil Storage and Transfer System will have at least one ITAAC.

**DCD Impact:**

Various Tier 1 subsections will be updated to provide the verifications of the RTNSS functions and capacities.