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Subject: **Response to Portion of NRC Request for Additional Information Letter No. 325 Related to ESBWR Design Certification Application – RAI Number 12.4-28 S03**

Enclosure 1 contains the GE Hitachi Nuclear Energy (GEH) response to the subject NRC RAI originally transmitted via the Reference 1 letter.

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

Sincerely,

*Richard E. Kingston*

Richard E. Kingston  
Vice President, ESBWR Licensing

Reference:

1. MFN 09-229, Letter from the U.S. Nuclear Regulatory Commission to Robert E. Brown, Request for Additional Information Letter No. 325, Related To ESBWR Design Certification Application, dated April 2, 2009

Enclosure:

1. Response to Portion of NRC Request for Additional Information Letter No. 325, Related to ESBWR Design Certification Application – RAI Number 12.4-28 S03

cc: AE Cabbage            USNRC (with enclosure)  
     J G Head              GEH/Wilmington (with enclosure)  
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     eDRF Section        0000-0100-8675

**Enclosure 1**

**MFN 09-271**

**Response to Portion of NRC Request for  
Additional Information Letter No. 325  
Related to ESBWR Design Certification Application**

**RAI Number 12.4-28 S03**

**NRC RAI 12.4-28 S03:**

*Document the commitment to have the area radiation monitoring system (ARMS) and the containment monitoring system (CMS) comply with RG 1.97 and BTP 7-10.*

*In GEH's response to staff's RAI 12.4-28 S01, GEH stated that both the Containment Monitoring System (CMS) and the Area Radiation Monitoring System (ARMS) would comply with the guidance of RG 1.97 and Branch Technical Position (BTP) 7-10. However, the Rev. 4 version of DCD Table 7.1-1 did not indicate that the guidance of RG 1.97 and BTP 7-10 applied to the CMS and ARMS. In RAI12.4-28 S02, the staff requested that Table 7.1-1 be modified to show that the CMS and ARMS were both in compliance with the guidance of RG 1.97 and BTP 7-10. In a June 26, 2008, e-mail from GEH to the staff, GEH stated of Rev. 5 of the ESBWR DCD. Although the revised Table 7.1-1 in Rev. 5 showed that the guidance of RG 1.97 applied to both the CMS and ARMS, this table showed that the guidance of BTP 7-10 applied only to the ARMS and not to the CMS.*

*It is the staff's position that DCD Table 7.1-1 be modified to indicate that both the CMS and ARMS are in compliance with the guidance provided in both RG 1.97 and BTP 7-10.*

**GEH Response:**

Table 7.1-1 will be revised to describe the regulatory applicability status for the CMS and ARMS to the guidance provided in RG 1.97 and BTP HICB-10 as part of the response to RAI 7.1-99, 7.1-100, 7.1-101, and 14.3-265 S01 as documented by MFN 09-089.

Two points of clarification related to Table 7.1-1 and CMS and ARMS are necessary:

1. Table 7.1-1 lists the older revision of BTP 7-10 (i.e., BTP HICB-10).
2. ARMS is not specifically listed as part of N-DCIS as in previous versions of Table 7.1-1.

In Revision 6, the N-DCIS systems were condensed down to the network segments with which they are associated and the ARMS is included in the N-DCIS PCF network segment. The new Table 7.1-1 and associated sections (7.5.2.3.4, 7.5.4.3.3, 7.5.2.3.5, and 7.5.4.3.4) related to CMS and ARMS in DCD Revision 6 discuss the associated regulatory requirements, guidelines, and codes and standards that are applicable.

**DCD Impact:**

No impact as the change has already been incorporated in DCD Revision 6 as part of MFN-09-089.