RAI Number	Reviewer	Full Text
Supplemental RAI 20.0-2	Radlinski R	NRC Response to GE Response to RAI 20.0-2 Reference GE Letter MFN 07-072, Dated March 19, 2007 The GE response to RAI 20.0-2 states that the ESBWR design does not require the use of Thermo-lag or any fire-retardant wraps because the ESBWR design meets Reg. Guide 1.75 requirements for separation criteria. Regulatory Guide 1.75, “Criteria for Independence of Electrical Safety Systems,” provides guidance for the electrical separation of safety-related circuits and references IEEE Standard 384-1992 “Standard Criteria for Independence of Class 1E Equipment and Circuits,” as providing specific details for that separation. However, neither RG 1.75 nor IEEE 384 are the appropriate guidance documents for fire-related separation of post-fire safe-shutdown electrical circuits. For example, the summary of IEEE 384-1992 includes the following statement: “Section 8 of IEEE Std 384-1981 was previously included to provide *interim* criteria for implementation of independence requirements for safe shutdown systems required for exposure fires. 10 CFR 50, Appendix R, has since been issued to provide the requirements for safe shutdown; consequently, Section 8 has been eliminated from the present issue of this standard.” The requirements for separation of redundant trains for post-fire safe shutdown provided by Appendix R are included as guidance in RG 1.189. GE’s response to this RAI should address their compliance with this guidance. Thermo-Lag 330 and other fire-retardant wraps have been used in existing plants where redundant trains are in the same fire area. While the ESBWR generally provides 3-hour passive fire barriers between redundant post-fire safe-shutdown divisions (i.e., each division is located in a separate fire area), DCD,Appendix 9A identifies and evaluates areas of the ESBWR where this level of separation is not feasible. These evaluations do not mention the use of fire-retardant wraps. GE should confirm that the ESBWR will not need to credit this type of fire barrier in these areas where 3-hour fire barriers cannot be provided to ensure post-fire safe shutdown. DCD, Tier 2, Rev. 3, Section 9.5.1.3, states, “The intent is to avoid the use of electrical raceway fire barrier systems (ERFBS) for ESBWR, relying instead on divisional separation by fire area and structural fire barriers.” This statement is consistent with guidance provided by RG 1.189, Revision 1 (to be issued in April 2007). However, the statement leaves open the possibility of adding an ERFBS in the future or for COL applicants to rely on this type of protection and the statement is, therefore, not consistent with GE’s response to this RAI (“intent is to avoid” is not the same as “design does not require the use of”).

RAI Number	Reviewer	Full Text
Supplemental RAI 20.0-4	Li R	In response to RAI 20.0-4, MFN 07-072, New Generic Issue 156.6.1, "Pipe Break Effects on Systems and Components," GE wrote, “see Sections 3.5, 3.6, 3.8, and 3.9 for details.” Please provide a description of how the generic issue is addressed with pointers to the lowest specific subsection in the DCD. GE should be clear on which specific aspect of the generic issue is discussed in each referenced DCD subsection.