



GE Energy

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MFN 07-260

Docket No. 52-010

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U.S. Nuclear Regulatory Commission  
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Washington, D.C. 20555-0001

Subject: **Response to Portion of NRC Request for Additional Information  
Letter No. 96 –Auxiliary Systems– RAI Numbers 9.5-50, 9.5-51, and  
9.5-52**

Enclosure 1 contains GE's 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,

A handwritten signature in cursive script that reads "Kathy Sedney for".

James C. Kinsey  
Project Manager, ESBWR Licensing

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Reference:

1. MFN 07-231, Letter from U.S. Nuclear Regulatory Commission to Robert E. Brown, *Request for Additional Information Letter No. 96 Related to the ESBWR Design Certification Application*, April 12, 2007.

Enclosure:

1. MFN 07-260 - Response to Portion of NRC Request for Additional Information Letter No. 96 – RAI Numbers 9.5-50, 51, and 52.

cc: AE Cabbage USNRC (with enclosure)  
BE Brown GE/Wilmington (with enclosure)  
LE Fennern GE/Wilmington (with enclosure)  
GB Stramback GE/San Jose (with enclosure)  
eDRF: 0000-0067-6952

**Enclosure 1**

**MFN 07-260**

**Response to Portion of NRC Request for  
Additional Information Letter No. 96  
Related to ESBWR Design Certification**

**Fire Protection System**

**RAI Numbers 9.5-50, 9.5-51, and 9.5-52**

**RAI 9.5-50**

*Clarify if the statement regarding a fire in the wetwell is incorrectly stated (DCD Tier 2, Section 9A.4.1). The third paragraph of Section 9A.4.1 in DCD Tier 2, Appendix 9A, Revision 3, includes the statement "A fire in the wetwell does prevent either the RWCU/SDC or FAPCS from providing core cooling." Should the word "not" be inserted between "does" and "prevent"? If the statement is correct as-is, please provide an explanation of how the plant will be safely shut down in the event of a fire in the wetwell.*

**GE Response**

This is an editorial error. The word “not” should be inserted between “does” and “prevent” in the statement.

**DCD Impact**

DCD Tier 2, third paragraph of Subsection 9A.4.1 is to be revised in Revision 4 to correct the above editorial error.

**RAI 9.5-51**

*Clarify the first sentence in DCD Section 9.5.1.15. Editorial Comment: The first sentence in DCD Tier 2, Revision 3, Section 9.5.1.15 needs to be revised. It does not make sense as written. Please clarify.*

**GE Response**

In DCD Tier 2, Subsection 9.5.1.15, the subject sentence is to be revised in Revision 4 to read as follows:

“The ESBWR fire Protection Program is established to ensure that a fire will not prevent safe shutdown of the plant and will not endanger the health and safety of the public.”

**DCD Impact**

DCD Tier 2, Subsection 9.5.1.15, 1<sup>st</sup> paragraph, 1<sup>st</sup> sentence, is to be revised in Revision 4 to correct the above editorial comment.

**RAI 9.5-52**

*Update the description of fire protection defense in depth included in DCD Section 9.5.1.15 in accordance with RGI.189. The description of fire protection defense in depth included in DCD Section 9.5.1.15 should include the third element of the standard definition of fire protection defense in depth: to provide protection for SSCs important to safety so that a fire that is not promptly extinguished by the fire suppression activities will not prevent the safe shutdown of the*

*plant. This is in accordance with Regulatory Position 1 of Regulatory Guide 1.189. Please update the description of fire protection defense in depth included in DCD Section 9.5.1.15 in accordance with RG 1.189.*

**GE Response**

The objectives of the Fire Protection Program, using the concept of defense-in-depth provided in RG 1.189, are included in DCD Subsection 9.5.1.1. DCD Subsection 9.5.1.15 describes the concept of defense-in-depth for the Fire Protection Program. Consideration of the concept of safe-shutdown capability is required to achieve the objectives of the program and the required degree of reactor safety.

The subject sentence is to be revised to read as follows:

“Fire protection at the plant uses a defense-in-depth concept that includes fire prevention, detection, control and extinguishing systems and equipment, administrative controls, procedures, trained personnel and the safe-shutdown capability.”

**DCD Impact**

DCD Tier 2, Subsection 9.5.1.15, 1<sup>st</sup> paragraph, 2<sup>nd</sup> sentence, is to be revised in Revision 4 to resolve the above comment.