

Enclosure 1

MFN 15-053

GEH Responses to RAIs 19-6 through 19-9

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NRC Request for Additional Information 19-6

In Section 19G.2, "Scope of Assessment" of the GEH ABWR DCD Tier 2, revision 5, the applicant indicates that the spent fuel pool is not perforated. However, the applicant did not describe whether an assessment was performed to ensure no leakage through the spent fuel liner below the required minimum water level of the pool.

Therefore, the applicant is requested to state that an assessment was performed to ensure no leakage through the spent fuel liner below the required minimum water level of the pool.

GEH Response:

GEH will add to revise the Appendix 19G.5 statement on the spent fuel pool to read as follows: The aircraft impact would not inhibit the ABWR's core cooling capability and spent fuel pool integrity based on best estimate calculations. There are no AIA scenarios that would result in leakage from the spent fuel pool below the required minimum water level. The pool liner is not perforated and all piping attachments are configured such that they will not allow drain down below the minimum water level described in Section 9.1.5.3.

Impact on DCD:

The DCD Tier 2 Section 19G.5 is revised as shown. The ABWR DCD Rev 5 marked up pages are provided in Enclosure 2.

NRC Request for Additional Information 19-7

In Section 19G.4.1, "Primary Containment" of the GEH ABWR DCD Tier 2, revision 5, the applicant concludes in the assessment that a strike upon the primary containment would not result in the perforation of the primary containment, and would not cause direct damage to the systems within the primary containment or expose them to jet fuel. However, the applicant did not describe whether the primary containment ultimate pressure capability is also maintained.

Therefore, the applicant is requested to addresses whether the primary containment can also maintain the ultimate pressure capability.

GEH Response:

The GEH evaluation contained in ABWR DCD Appendix 19G concluded that at least one division of core cooling remains available post-strike demonstrating compliance with the first option of 50.150(a)(i); therefore, demonstration of maintaining ultimate pressure capability is not required.

Impact on DCD:

No changes to the DCD will be made as a result of this RAI.

NRC Request for Additional Information 19-8

In Section 19G4.2, "Site Arrangement and Plant Structural Design" of the GEH ABWR DCD Tier 2, revision 5, the applicant describes in Item (3) that the key design features for the reactor well shield plugs for protecting the drywell head from secondary impacts are identified in Section 3H.1.4, "Structural Design Criteria." Please provide the correct section addressing the key design features for the reactor well shield plugs for protecting the drywell head from secondary impacts.

GEH Response:

GEH will add a description and figure for the reactor cavity shield blocks to Section 3H.1 and Figure 3H.1-23. GEH will revise Section 19G.4 to add a reference to the figure.

Impact on DCD:

The DCD Tier 2 Sections 3H.1 and 19G.4 are being revised to address this RAI. The ABWR DCD Rev 5 marked up pages are provided in Enclosure 2.

NRC Request for Additional Information 19-9

In Section 19G.4.2, "Site Arrangement and Plant Structure Design," of the GEH ABWR DCD Tier 2, revision 5, the applicant describes in Items (6) and (7) that the key design features that protect the east and west walls of the Control Buildings by the location and design of the Service Building and Control Building Annex structures from the impact of a large commercial aircraft were described in Section 3H.6, "Summary of the Key Structural Design Features" and figures 1.2-20 through 1.2-22. However, the applicant did not provide any discussions of the design features in Section 3H.6 that the east and west walls of the Control Buildings are protected from the impact of a large commercial aircraft.

Therefore, the applicant is requested to provide the design features in Section 3H.6 that protect the east and west walls of the Control Buildings from the impact of a large commercial aircraft.

GEH Response:

The following key design information will be added to Section 3H.1: (8) The Control Building Annex exterior walls running in the North-South direction are made of reinforced concrete and are at least 600mm thick. (9) The Service Building exterior walls running in the North-South direction are made of reinforced concrete and are at least 600mm thick. Together they will protect the East and West walls of the Control Building from a strike of a large commercial aircraft.

Impact on DCD:

The DCD Tier 2 Section 3H.6 is being revised to address this RAI. The ABWR DCD Rev 5 marked up pages are provided in Enclosure 2.