

## **AP1000TopRptsPEm Resource**

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## List of Items/Questions for Clarification in the Option Report and DCD Markups

1. DCD Tier 1 Table 5.0-1 markup associated with audit action item # 49 (related to the characterization of shear wave velocity) revised the characterization of shear wave velocity from [ ]. The basis for that change is not clear to the staff. The staff request Westinghouse to provide the basis or change back to the original definition.
2. DCD Tier 1 Table 5.0-1 markup (CN T1-5.0-2) states that “[ ]” Consistent with the scope and analysis performed for the Option report, the staff finds that the aforementioned text should be revised to indicate that a site-specific evaluation can be performed subject to the demonstration that a [ ] analysis is appropriate for the site. Further, the staff request Westinghouse to make consistent changes to other DCD Sections, as applicable, such as the site-specific evaluation criteria in DCD Section 2.5.2.
3. Consistent with the markups associated with audit action item # 3 for Option Section 3.2, the statement on Page A-44 “[ ]” should be removed from CN T2-3.7-2.
4. On Page A-48, the specification of [ ] should not be characterized as “an upper bound case,” to be consistent with the Option (CN T2-3.7-6).
5. DCD Tier 2 Section 3.7.1.2 Paragraph 1 text needs to be revised to reflect the identification of seed records, total duration, and correlation coefficients that are specific to the ESS design acceleration time histories. DCD markup in in the Option report does not cover this paragraph.
6. DCD Tier 2 Section 3.7.1.2 Paragraph 4 text needs to be revised to remove damping values of [ ] percent to be consistent with the new Figures 3.7.1-6, -7, and -8. The reference to SRP 3.7.1, Table 3.7.1-1 for frequency intervals should also be revised to reflect the Option specific information. DCD markup in in the Option report does not cover this paragraph.
7. DCD Tier 2 Section 3.7.1.2 Paragraph 5 text needs to be revised to reflect the Option specific information regarding PSD check. DCD markup in the Option report does not cover this paragraph.
8. DCD markup for Section 3.7.1.2 Paragraph 10 text should be enhanced to be consistent with the response to the RAI-SSO-003, Rev. 2 and associated markups to Option report Section 2.1.
9. DCD Tier 2 Section 3.7.3 Paragraph 1 text needs to be revised to replace “[ ]” with “[ ]” to reflect the Option specific information regarding PSD check. DCD markup in HSP-GW-GLR-001, Revision 0 does not cover this paragraph.
10. CN T2-3.7-24 has changed the number of cycles for fatigue analysis from 63 cycles per event to a provision that allows to follow IEEE-344-1987. The basis for this change is not clear to the staff. Please provide the basis or remove markup, as necessary.
11. In the context of site-specific evaluations, the staff notes that some DCD markups replace “[ ]” by “[ ].” However, the staff finds instances in the new markups in response to audit action items, where the term “[ ]” was used. The staff finds that “[ ]” is the most appropriate term and therefore requests Westinghouse to replace “[ ]” by “[ ]” as applicable.

12. Option report Section 4.1 needs to correct the reference to Table 3.8.5-1 markups. Section 4.1 refers to this Table as containing the required vs provided steel reinforcement areas of critical sections though the basemat which are provided in the Table 3.8.5-3 markups.
13. Table RAI-SSO-003-2 in RAI-SSO-003, Rev. 2, shows a maximum basemat sliding displacement with consideration of [ ]. However, the markups to the Option report Section 4.1.1 associated with the action item # 27, revised the [ ]. The staff request Westinghouse to correct the aforementioned inconsistency between Table RAI-SSO-003-2 in RAI-SSO-003, Rev. 2 and markups to the Option report Section 4.1.1. Further, consistent with the requested correction, the staff request Westinghouse to revise the markups to DCD Section 3.8.5.5.5 and footnote 2 to Table 3.8.5-2.
14. Figure 3H.5-2 (Sheet 2 of 3) needs to be updated to show section numbers 10, 11, 12, 13.
15. The following required/provided ratios in Tables 4-3, 4-4, and 4-6 (demand/allowable ratios) and the respective design summary tables in the DCD need to be corrected for consistency between the reported values or clarified, as applicable.
  - a. Items 3, 6, and 9 in Table 4-3 and DCD Tables 3H.5-7, 3H.5-11, and 3H.5-8, respectively.
  - b. Items 1, and 4 in Table 4-4 and DCD Tables 3H.5-14, and 3H.5-9 (sheet 2b of 4), respectively.
  - c. Items 1, 2, 3, and 4 in Table 4-6 and DCD Tables 3.8.3-4, 3.8.3-5, 3.8.3-6, and 3.8.3-7, respectively.
16. The Option report needs to include markups consistent with the response to RAI-SSO-011. Additionally, the markups in the response to RAI-SSO-002, Rev. 2 need to be augmented to include summary tables of required/provide or demand/allowable values pertaining to the [ ].
17. Table 3.8.2-5 needs to be revised to include references to Table notes or delete notes as applicable.
18. Regarding audit action item 52, the staff request Westinghouse to clarify/describe in the Option report markups, whether for the [ ].
19. The basis for the changes to Figures 3H.5-5 and 3H.5-8 are not clear to the staff. Please provide the basis or remove markup, as necessary.
20. On page 5-4 in the Option report, Rev. 0 (under bullet describing final design), the staff finds inconsistent references to the certified AP1000 design. Specifically, the staff request Westinghouse to clarify the reference to "... the structural capacities of the certified ..." or correct/remove the term "certified" at this location, as applicable.