Application of Guidance to Implement 10 CFR 72.48 (NEI-96-07 Appendix B) - Examples of Potential Realistic Activities Reviewed through the 72.48 Process

Attachment 1 – Summary of Examples

NOTE: *The following summary is for ease-of-use to see a snap-shot and navigate the various examples and variants. These are NOT to be used to make general determinations of how to apply the guidance in NEI 96-07, Appendix B. Users of these examples MUST read the details of the entire example and variants, and the entire guidance in NEI 96-07, Appendix B to fully understand how it is applied in these cases.*

No.	Example-Variant	Change Description	Conclusion – NRC Approval Required?	Location
1	#1 – Main	Change structural analysis computer code from Alpha to Bravo. {Codes with different theories}	Yes – Bravo was not previously approved for the intended application	Att. 2 - p. 3
2	#1-Variant 1	Change structural analysis computer code from Alpha 5.6 to Alpha 6.0.	No – Methods of evaluation are essentially the same	Att. 2 – p. 6
3	#1-Variant 2	Change structural analysis computer code from Alpha to Delta. {Codes with same theories}	No – Change in element of method of evaluation where new results are conservative	Att. 2 – p. 7
4	#1-Variant 3	Change in the structural re-bar of the over-pack. {No change to codes}	No – No specific NRC acceptance based on size or spacing of re-bar, cask still meets standards. {This is not a method of evaluation change}	Att. 2 – p. 7
5	#2 – Main	Reduction in weight of transfer cask: 1) include new supplemental shielding components, and 2) apply thermal analysis used for other NRC approved conditions to this condition for the first time.	#1) Yes – possibility of a malfunction with a different result #2) Yes – method of evaluation was not approved for intended function	Att. 3 – p. 5
6	#2-Variant 1	Same, except TS require user to have a Part 50 Radiation Program that would apply to these activities.	#1&2 Yes – same reason as main example {Does not require TS change}	Att. 3 – p. 6
7	#3 – Main	Removal of a helium leak test (HLT) of canister fabrication welds.	Yes – because the HLT was relied upon by the NRC, in the SER, to provide reasonable assurance that the as-fabricated cask performed the design functions. Also, this would result in a malfunction with a different result, since the test is being eliminated.	Att. 4 – p. 6
8	#3-Variant 1	Replace the helium leak test of canister fabrication welds, with an equivalent test.	No – because the HLT is being replaced with an equivalent test and the HLT was not relied upon by the NRC, in the SER, to provide reasonable assurance. {The QA and Test programs still need to be reviewed to determine if replacing a test would violate either of	Att. 4 – p. 6

			these programs}	
9	#4 – Main	Change the criticality code from Alpha 1.0 to Alpha 2.0.	No – it is a change in an element of the method of evaluation, but the results are conservative.	Att. 5 – p. 3
10	#4-Variant 1	Change the criticality code from Alpha to Bravo.	No – it is a change to a new method of evaluation, however, the new method of evaluation was already approved by the NRC for the intended application by SER of another CoC.	Att. 5 – p. 4
11	#4-Variant 2	Change to the basket cell wall thickness.	No – there is no change to any parameter listed in the CoC/TS, and the results using the same method of evaluation resulted in no change to the maximum calculated k-eff. {This is a change to an input to a method of evaluation, and is not a change to a method of evaluation itself}	Att. 5 – p. 4
12	#5 – Main	Reduction in the diameter of the concrete over-pack.	No – there is no change to the CoC or approved contents. This is a change to the assumptions (from overly-conservative/simplistic to conservative/detailed) of the shielding calculation, and the NRC did not mention in the SER that the assumptions were relied upon to provide reasonable assurance.	Att. 6 – p. 5
13	#5-Variant 1	Reduction in the diameter of the concrete over-pack.	Yes – this is a change to inputs and method of evaluation, since they were part of the NRC's basis for determining adequate protection.	Att. 6 – p. 6
14	#6 – Main	Installation of an enclosure structure over the casks for a site-specific ISFSI. The proposed structure is open-air, but has a roof and walls.	No – the impact the thermal design function described in the FSAR would not result in a positive finding for any of the evaluation questions.	Att. 7 – p. 5
15	#6-Variant 1	Installation of an enclosure structure over the casks for a site-specific ISFSI. The proposed structure is a sun-cover.	No – the screening would identify that there is no impact to any FSAR described design function.	Att. 7 – p. 6
16	#6-Variant 2	Installation of an enclosure structure over the casks for a site-specific ISFSI. The proposed structure is enclosed by a roof and walls, and contains vents.	Yes – this would either a) require a TS change to include a surveillance requirement for the enclosure's vents, or b) potential blockage of the vents would result in a malfunction with a different result.	Att. 7 – p. 6