

NEI 16-03 Comment Resolution on Draft Safety Evaluation

Comment Number	Location	Comment	Comment Resolution
1	Safety Evaluation (SE) Page 1, Section 2.0, line 27	Insert “continued effectiveness of the”	Incorporate in part – revise insert to say “effectiveness of the”
2	SE Page 1, Section 2.0, line 27	Replace “monitor” with “material”	Incorporate comment – this was editorial.
3	SE Page 1, Section 2.0, line 34	Add “/or”	Incorporate comment – this was editorial.
4	SE Page 2, Section 2.0, line 24	Replace “credited for” with “providing”	Incorporate comment – this was editorial.
5	SE Page 2, Section 3.0, line 30	Delete “perform its safety function (i.e., criticality control) as assumed” and replace with “(provide the criticality control) relied upon”	Incorporate comment – this was editorial.
6	SE Page 2, Section 3.0, lines 32-33	Delete “to ensure that the required subcriticality margin is maintained in accordance with 10 CFR 50.68 requirements”	Incorporate in part – Delete the recommended part and add “, and help to maintain the subcriticality margin in accordance with 10 CFR 50.68 requirements.”
7	SE Page 2, Section 3.0, line 36	Delete “a combination” and replace with “the use”	Incorporate comment – this was editorial.
8	SE Page 2, Section 3.0, line 37	Add “/or”	Incorporate comment – this was editorial.
9	SE Page 2, Section 3.0, line 42	Add “/or”	Incorporate comment – this was editorial.
10	SE Page 4, Section 3.1.2, line 9	Add “s”	Incorporate comment – this was editorial.
11	SE Page 4, Section 3.1.2, line 10	Add “regarding the AD of the NAM”	Incorporate comment – The U.S. Nuclear Regulatory Commission (NRC) staff agrees that this clarifies the intent of the Neutron Absorbing Material (NAM) monitoring program only applies to the assumptions regarding the NAM in the licensee’s Spent Fuel Pool (SFP) criticality Analysis of Record (AOR).

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12	SE Page 4, Section 3.1.2, lines 13-15	<p>“Is it not clear what this statement means. The wording in Section 3.1.1, Page 3, lines 30-32 provides more clarity. (i.e., within measurement uncertainty). The last bullet in Section 2.1 of [Nuclear Energy Institute Topical Report NEI 16-03] NEI 16-03 provides the acceptance criteria for the neutron absorber monitoring program. The measurement uncertainty could result in an areal density lower than the value assumed in the AOR, however, whether this is acceptable or not depends on whether the NAM is or is not “anticipated to have a loss of ¹⁰B areal density” [last bullet of Section 2.1] No wording change is proposed, because the intent of the NRC statement is not clear.”</p>	<p>Partially Incorporate Comment – the intent of the NRC staff is to make it clear that when incorporating measurement uncertainty into the as-measured ¹⁰B AD value, a value lower than assumed in the SFP criticality analysis AOR would not meet the acceptance criteria, regardless of the NAM used, or type of monitoring program (coupons or in-situ testing). Therefore, the staff has deleted these lines from Section 3.1.2, and created new text in Section 3.4 “Technical Evaluation Conclusion” to clarify this position. The text reads as follows “The NRC staff also finds that it would not meet the acceptance criteria in a NAM monitoring program for the measurement uncertainty to result in a ¹⁰B AD value that is lower than the assumed value in the SFP criticality AOR. The staff expects that if a given test result shows a ¹⁰B AD value lower than the value assumed in the SFP criticality AOR, the licensee will take the appropriate corrective actions in accordance with licensee programs and processes.”</p>
13	SE Page 4, Section 3.1.2, line 16	Delete “limit as stated” and replace with “value used”	Incorporate comment – this was editorial.
14	SE Page 4, Section 3.1.2, lines 19-20	Revise to read “degrade below the ¹⁰ B AD assumed in the licensee’s SFP criticality AOR.”	Incorporate comment – this was editorial.
15	SE Page 5, Section 3.2.2, lines 19-20	Delete “perform its safety function” and replace with	Incorporate comment – this was editorial.

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		"provide the criticality control relied upon in the AOR."	
16	SE Page 5, Section 3.2.2, line 24	Delete "and" and replace with "or"	Incorporate comment – this clarifies that either option may be used, and not both
17	SE Page 5, Section 3.2.2, lines 25-27	NEI asked for clarification on this statement as NEI feels that 59 randomly sampled panels, independent of pool size, provide a 95/95 confidence limit according to NUREG-6698.	Reject comment – NUREG-6698 states "... at least 59 critical experiments will need to be included in the validation in order to attain a 95% degree of confidence the 95% of the population lies above the smallest observed value" (emphasis added). The NRC staff statement in the SE means that this topical report does not allow for only testing 59 panels without a licensee evaluation that shows how it produces 95/95 confidence limits. Licensees need to evaluate their sampling procedures to ensure they produce 95/95 confidence limits regardless of the number of panels selected. Additionally, Option 1 in Section 2.2 on page 5 of NEI 16-03, Revision 0, states that the licensee can "Take a measurement of a minimum of 59 panels...." This statement is not consistent with the comment from NEI.
18	SE Page 6, Section 3.3.1, line 22	Delete "procedures" and replace with "processes."	Incorporate comment – this was editorial.
19	SE Page 6, Section 3.3.1, line 27	Delete "procedures" and replace with "processes."	Incorporate comment – this was editorial.
20	SE Page 7, Section 3.3.2, lines 1-2	Delete "perform its safety function as assumed" and replace with "provide the criticality control relied upon"	Incorporate comment – this was editorial.
21	SE Page 7, Section 3.4, line 21	Delete "perform its safety function as assumed" and	Incorporate comment – this was editorial.

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		replace with “provide the criticality control relied upon”	
22	SE Page 7, Section 4.0, line 28	Delete “implanting” and replace with “implementing”	Incorporate comment – this was editorial.
23	SE Page 7, Section 4.0, lines 30-31	Delete “perform its safety function as assumed” and replace with “provide the criticality control relied upon”	Incorporate comment – this was editorial.
24	SE Page 8, Section 5.0, line 10	Replace “9.1.1” with “9.1.2”	Incorporate comment – this was editorial.
25	SE Page 8, Section 5.0, lines 22-23	Replace “Safe Calculation” with “Safety Calculational”	Incorporate comment – this was editorial.