

Comment #	Page#/Line#	Suggested Changes	Reasoning
1	1 / 2	SS-14-P01.028-TR is missing a 'P' and should read 'SSP-14-P01/028-TR'	Correction of typo.
2	2 / 8	"[...] arrange up to" Should read "[...] a range up to".	Correction of typo.
3	2 / 14	"gaseous waste disposal" should be: "gigawatt days"	Update to provide correct description for the acronym GWd.
4	2 / 17	"CASMO55" should be "CASMO5"	Correction of typo.
5	4 / 40	Replace 'performed' with 'determined'	This provide more clarity to what is being said in the sentence.
6	6 / 3	"ENDF/B-VII" should be "ENDF/B-VII.1"	This is to be consistent with the library data and later mentions in the SE.
7	8 / 38	"SIMULAT5" should be "SIMULATE5"	Correction of typo.
8	9 / 34 – 36	Suggest text change from: "This quadratic function models the variations of the spatial shielding effects over the depletion step and therefore improves the overall accuracy of depletion calculations (Ref. 2). This quadratic function models the variations of the spatial shielding effects over the depletion step and improves the overall efficiency of depletion calculations" To: "This quadratic function models the variations of the spatial shielding effects over the depletion step and therefore improves the overall accuracy of depletion calculations (Ref. 2)."	The sentence was repeated twice it appears accidentally. Correction for clarity.
9	11 / 32	"heat model" should be "heat structure model"	This provide consistency with the discussion of the heat structure model.
10	15 / 17 - 21	Change the sentence: " The DIMPLE experimental facility consists of water-reflected cylindrical systems to power reactor geometries by assembling a cruciform array of 3	Provide more clarity to the discussion of the geometry of DIMPLE experiments.

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		<p>percent-enriched uranium dioxide fuel pins arranged in an array that simulated the rectangular corner configuration of a PWR and effectively represented twelve PWR fuel assemblies (Figure 3-22 of Ref. 4)."</p> <p>To:</p> <p>" The DIMPLE experimental facility consists of a water-reflected cylindrical system to model power reactor geometries by assembling a cruciform array of 3 percent-enriched uranium dioxide fuel pins arranged to simulate the rectangular corner configuration of a PWR and effectively represented twelve PWR fuel assemblies (Figure 3-22 of Ref. 4)."</p>	
11	15 / 26	"CASO5" should be "CASMO5"	Correction of typo.
12	16 / 37	"Japan Atomic Energy Research Institute PER Isotope Benchmarks" Should read "[...] PWR Isotope Benchmarks".	Correction of typo.
13	17 / 28	"{ }" should be bracketed as proprietary as in the previous portion of the paragraph.	This is proprietary and consistent with earlier mention in the paragraph.
14	17 / 37	The sentence: "... SIMULATE5 treatment temperature solution and determine ..." Should be updated to: "... SIMULATE5 fuel temperature solution and determined ..."	To provide more clarity to the acceptance of the SIMULATE5 fuel temperature solution.
15	18 / 33	Change "to" to "using the same"	To provide better clarity to the calculation that was performed.
16	18 / 44	"MCNCP6" should be changed to "MCNP6"	Consistent use of the code name
17	24 / 20	"equation 6" should be "equation 8"	Correction of typo.
18	24 / 24	"Equation (7)" should be "Equation (9)"	Correction of typo.
19	26 / 12	Insert a space between 'therod' to become "the rod"	Correction of typo.
20	26 / 24	"... peak DRW." should be changed to "... ITC."	Correction of typo.

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21	28 / 23	"p-to-box" should be "pin-to-box"	Correction of typo.
22	29 / 39	"9" should be replaced by ":"	Correction of typo.
23	31 / 10	Insert a period after the sentence that ends "... analyses."	Correction of typo.
24	32 / 9	Reference 3 should be inserted before Table 4-11.	To provide clarity on where table 4-11 is from.
25	32 / 43	"HZP" should be changed to "HFP"	To provide clarity on the actual transient modeled.
26	33 / 33	"32 percent" should be changed to "32 ppm"	Correction of typo.
27	34 / 12	"Table 4-9" should be "Table 4-17"	Provide the correct table reference for the discussion in the paragraph.
28	34 / 43	The value "{ }" should be bracketed.	This value is proprietary and is marked in the references as such.
29	34 / 46	The value "{ }" should be bracketed.	This value is proprietary and is marked in the references as such.
30	36 Table 1	The values of the NUF's and NRF's should all be bracketed.	All these values are proprietary and have been redacted in all previous submittals and interactions.
31	36 / 16	TR document number should be "SSP-14-P01/028-TR-P"	Corrected for consistency in document.
32	37 / 20 – 21	Suggest changing the text: "CMS5 code system can handle cladding materials with composition Zr, Nb, Sn, Fe, Cr, Ni, and O" to "CMS5 code system can handle Zr based cladding materials with trace elements of other materials (such as Nb, Sn, Fe, Cr, Ni, and O)"	The changing of the text recognizes that fuel manufacturers alter compositions slightly and add different doping materials to alloys. The CMS5 code system is designed to handle these types of changes in the evolution of fuel designs.
33	37 / 35 – 36	Suggest changing the text: "However, the NRC staff has restricted the rod average fuel burnup up to 52 GWd/MTU for all approved types of cladding." To "However, the NRC staff has restricted the rod average fuel burnup for all approved types of cladding."	The suggested change is to acknowledge that the NRC does set limits for burnup for each approved cladding type. This also provide flexibility that this could change in the future and the CMS5 system has been demonstrated to accurately predict burnups well beyond the current limits as stated in the response to RAI's.  If the suggested text is not used then the 52 GWd/MTU should be 62 GWd/MTU to be consistent with current licensing limits of advanced cladding materials.

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34	37 / 38 – 42	<p>Suggest changing the text:                      "Any change management with respect to addition of new features, new functionality, correction of software errors, and/or usage of additional data from operating reactors/test reactors/Halden must ensure that the nuclear reliability factors reported in this CMS5 TR remain conservative."</p> <p>To</p> <p>"Any change management with respect to addition of new features, new functionality, correction of software errors, and/or usage of additional data from operating reactors/test reactors/Halden must ensure that the nuclear reliability factors generated by exercising the methodology reported in this CMS5 TR remain conservative."</p>	<p>The suggested change is to clarify that the uncertainty methodology is approved to be used by customers who may have additional data to use in the analysis of NUF's and NRF's.</p>
35	38 / 39	"SSP-14/P01-028-TR-P", should be: "SSP-14-P01/028-TR-P"	For consistency through the document.
36	38 / 42	"SSP-14/P01-028-TR-P", should be: "SSP-14-P01/028-TR-P"	For consistency through the document.
37	38 / 46	"SSP-14/P01/012-R" should be: "SSP-14-P01/012-R"	Correction of typo.
38	39 / 13	"(Proprietary)" should be inserted at the end of the reference.	This document is proprietary.
39	39 / 15	"(Proprietary)" should be inserted at the end of the reference.	This document is proprietary.