Table 6.9.6-11. Results for HEU broken metal content in packaging calculation model

case name	np (in)	enr. (wt%)	U (g)	^{235}U (g)	H_2O (g)	h/x	moifr	k_{eff}	σ	$k_{eff}+2\sigma$	case name	k_{eff}	σ	$k_{eff}+2\sigma$
ncf3bmt11_20_2_7_3	1.4	95	19433	18461	8553	12.09	1.0e-04	0.92140	0.00126	0.92392	hcf4bmt12_20_2_7_3	0.88860	0.00138	0.89135
ncf3bmt11_19_2_7_3	1.4	95	18507	17582	8602	12.77	1.0e-04	0.91794	0.00128	0.92049	hcf4bmt12_19_2_7_3	0.88544	0.00131	0.88806
ncf3bmt11_18_2_7_3	1.4	95	17582	16703	8651	13.52	1.0e-04	0.91432	0.00143	0.91717	hcf4bmt12_18_2_7_3	0.87916	0.00119	0.88154
ncf3bmt11_28_2_6_3	1.4	90	27778	25001	8111	8.47	1.0e-04	0.93537	0.00113	0.93763	hcf4bmt12_28_2_6_3	0.89885	0.00127	0.90138
ncf3bmt11_27_2_6_3	1.4	90	26852	24167	8160	8.81	1.0e-04	0.93322	0.00129	0.93581	hcf4bmt12_27_2_6_3	0.89628	0.00137	0.89902
ncf3bmt11_26_2_6_3	1.4	90	25927	23334	8209	9.18	1.0e-04	0.92880	0.00119	0.93117	hcf4bmt12_26_2_6_3	0.89189	0.00127	0.89443
ncf3bmt11_25_2_6_3	1.4	90	24075	21667	8308	10.01	1.0e-04	0.92446	0.00149	0.92745	hcf4bmt12_25_2_6_3	0.88877	0.00144	0.89165
ncf3bmt11_24_2_6_3	1.4	90	23149	20834	8357	10.47	1.0e-04	0.92270	0.00138	0.92547	hcf4bmt12_24_2_6_3	0.88731	0.00129	0.88990
ncf3bmt11_23_2_6_3	1.4	90	22223	20000	8406	10.97	1.0e-04	0.91857	0.00138	0.92133	hcf4bmt12_23_2_6_3	0.88245	0.00133	0.88512
ncf3bmt11_22_2_6_3	1.4	90	21297	19167	8455	11.51	1.0e-04	0.91639	0.00145	0.91929	hcf4bmt12_22_2_6_3	0.87838	0.00119	0.88076
ncf3bmt11_34_2_5_3	1.4	80	33376	26701	7817	7.64	1.0e-04	0.92540	0.00127	0.92795	hcf4bmt12_34_2_5_3	0.88608	0.00131	0.88869
ncf3bmt11_33_2_5_3	1.4	80	32449	25959	7866	7.91	1.0e-04	0.92436	0.00140	0.92716	hcf4bmt12_33_2_5_3	0.88749	0.00156	0.89061
ncf3bmt11_32_2_5_3	1.4	80	31522	25218	7915	8.19	1.0e-04	0.91919	0.00120	0.92159	hcf4bmt12_32_2_5_3	0.88581	0.00130	0.88841
ncf3bmt11_31_2_5_3	1.4	80	30595	24476	7964	8.49	1.0e-04	0.91747	0.00126	0.92000	hcf4bmt12_31_2_5_3	0.88299	0.00141	0.88582
ncf3bmt11_36_2_4_3	1.4	70	35275	24693	7719	8.16	1.0e-04	0.90114	0.00120	0.90353	hcf4bmt12_36_2_4_3	0.86624	0.00106	0.86835
ncf3bmt11_35_2_4_3	1.4	70	34347	24043	7768	8.43	1.0e-04	0.89908	0.00131	0.90169	hcf4bmt12_35_2_4_3	0.86262	0.00143	0.86549
ncf3bmt11_34_2_4_3	1.4	70	33419	23393	7817	8.72	1.0e-04	0.89841	0.00115	0.90070	hcf4bmt12_34_2_4_3	0.86008	0.00129	0.86265
ncf3bmt11_36_2_3_3	1.4	60	35320	21192	7719	9.51	1.0e-04	0.87206	0.00120	0.87446	hcf4bmt12_36_2_3_3	0.83873	0.00122	0.84116
ncf3bmt11_35_2_3_3	1.4	60	34391	20634	7768	9.83	1.0e-04	0.86988	0.00123	0.87235	hcf4bmt12_35_2_3_3	0.83470	0.00130	0.83731
ncf3bmt11_34_2_3_3	1.4	60	33461	20077	7817	10.16	1.0e-04	0.86818	0.00130	0.87078	hcf4bmt12_34_2_3_3	0.83204	0.00117	0.83439

Table 6.9.6-11. Results for HEU broken metal content in packaging calculation model

case name	np (in)	enr. (wt%)	U (g)	^{235}U (g)	H_2O (g)	h/x	moifr	k_{eff}	σ	$k_{eff}+2\sigma$	case name	k_{eff}	σ	$k_{eff}+2\sigma$
content in flooded containment vessel, array packaging model for CSI=3.1														
NCT											HAC			
no can spacers (np thickness = 0.0 in.)														
nctf5bmt11_36_1_5_3	0.0	80	35231	28184	8332	7.72	1.0e-04	0.92519	0.00130	0.92779	hctf5bmt12_36_1_5_3	0.90361	0.00119	0.90600
nctf5bmt11_35_1_5_3	0.0	80	34303	27443	8381	7.97	1.0e-04	0.91980	0.00138	0.92255	hctf5bmt12_35_1_5_3	0.90246	0.00137	0.90520
nctf5bmt11_34_1_5_3	0.0	80	33376	26701	8430	8.24	1.0e-04	0.92113	0.00138	0.92389	hctf5bmt12_34_1_5_3	0.89974	0.00136	0.90246
nctf5bmt11_33_1_5_3	0.0	80	32449	25959	8479	8.53	1.0e-04	0.91846	0.00117	0.92079	hctf5bmt12_33_1_5_3	0.89587	0.00129	0.89845
nctf5bmt11_32_1_5_3	0.0	80	31522	25218	8529	8.83	1.0e-04	0.91556	0.00119	0.91795	hctf5bmt12_32_1_5_3	0.89459	0.00148	0.89755
nctf5bmt11_36_1_4_3	0.0	70	35275	24693	8332	8.81	1.0e-04	0.90020	0.00139	0.90299	hctf5bmt12_36_1_4_3	0.87905	0.00142	0.88188
nctf5bmt11_35_1_4_3	0.0	70	34347	24043	8381	9.10	1.0e-04	0.89748	0.00118	0.89984	hctf5bmt12_35_1_4_3	0.87388	0.00126	0.87639
nctf5bmt11_34_1_4_3	0.0	70	33419	23393	8430	9.41	1.0e-04	0.89206	0.00115	0.89437	hctf5bmt12_34_1_4_3	0.87550	0.00150	0.87851
nctf5bmt11_36_1_3_3	0.0	60	35320	21192	8332	10.26	1.0e-04	0.87170	0.00131	0.87433	hctf5bmt12_36_1_3_3	0.85181	0.00121	0.85423
nctf5bmt11_35_1_3_3	0.0	60	34391	20634	8381	10.60	1.0e-04	0.87122	0.00146	0.87414	hctf5bmt12_35_1_3_3	0.85100	0.00135	0.85369
with can spacers (np thickness = 1.4 in.)														
nctf5bmt11_26_2_8_3	1.4	100	25894	25894	8209	8.28	1.0e-04	0.92880	0.00114	0.93108	hctf5bmt12_26_2_8_3	0.90779	0.00115	0.91009
nctf5bmt11_25_2_8_3	1.4	100	24969	24969	8258	8.63	1.0e-04	0.92250	0.00118	0.92485	hctf5bmt12_25_2_8_3	0.90619	0.00136	0.90890
nctf5bmt11_24_2_8_3	1.4	100	23119	23119	8357	9.43	1.0e-04	0.92133	0.00137	0.92406	hctf5bmt12_24_2_8_3	0.90163	0.00125	0.90413
nctf5bmt11_23_2_8_3	1.4	100	22195	22195	8406	9.89	1.0e-04	0.92154	0.00124	0.92401	hctf5bmt12_23_2_8_3	0.90028	0.00150	0.90329
nctf5bmt11_22_2_8_3	1.4	100	21270	21270	8455	10.38	1.0e-04	0.91455	0.00141	0.91737	hctf5bmt12_22_2_8_3	0.89693	0.00148	0.89990
nctf5bmt11_21_2_8_3	1.4	100	20345	20345	8504	10.91	1.0e-04	0.91027	0.00140	0.91306	hctf5bmt12_21_2_8_3	0.89420	0.00140	0.89700
nctf5bmt11_30_2_7_3	1.4	95	29612	28131	8013	7.43	1.0e-04	0.92409	0.00126	0.92660	hctf5bmt12_30_2_7_3	0.90413	0.00129	0.90670
nctf5bmt11_29_2_7_3	1.4	95	28686	27252	8062	7.72	1.0e-04	0.92175	0.00160	0.92495	hctf5bmt12_29_2_7_3	0.90149	0.00125	0.90400

Table 6.9.6-11. Results for HEU broken metal content in packaging calculation model

case name	np (in)	enr. (wt%)	U (g)	^{235}U (g)	H_2O (g)	h/x	moifr	k_{eff}	σ	$k_{eff}+2\sigma$	case name	k_{eff}	σ	$k_{eff}+2\sigma$
nctf5bmt11_28_2_7_3	1.4	95	27761	26373	8111	8.03	1.0e-04	0.91662	0.00149	0.91960	hctf5bmt12_28_2_7_3	0.89554	0.00127	0.89809
nctf5bmt11_27_2_7_3	1.4	95	26835	25494	8160	8.35	1.0e-04	0.91290	0.00112	0.91515	hctf5bmt12_27_2_7_3	0.89349	0.00120	0.89588
nctf5bmt11_26_2_7_3	1.4	95	25910	24615	8209	8.71	1.0e-04	0.90934	0.00124	0.91182	hctf5bmt12_26_2_7_3	0.88954	0.00116	0.89187
nctf5bmt11_25_2_7_3	1.4	95	24985	23736	8258	9.08	1.0e-04	0.90900	0.00116	0.91131	hctf5bmt12_25_2_7_3	0.88811	0.00120	0.89051
nctf5bmt11_24_2_7_3	1.4	95	23134	21977	8357	9.92	1.0e-04	0.90460	0.00146	0.90752	hctf5bmt12_24_2_7_3	0.88850	0.00132	0.89113
nctf5bmt11_35_2_6_3	1.4	90	34260	30834	7768	6.58	1.0e-04	0.92200	0.00132	0.92464	hctf5bmt12_35_2_6_3	0.90072	0.00123	0.90318
nctf5bmt11_34_2_6_3	1.4	90	33334	30001	7817	6.80	1.0e-04	0.91799	0.00130	0.92059	hctf5bmt12_34_2_6_3	0.89921	0.00112	0.90145
nctf5bmt11_33_2_6_3	1.4	90	32408	29167	7866	7.04	1.0e-04	0.91789	0.00136	0.92061	hctf5bmt12_33_2_6_3	0.89931	0.00137	0.90206
nctf5bmt11_32_2_6_3	1.4	90	31482	28334	7915	7.29	1.0e-04	0.91514	0.00113	0.91740	hctf5bmt12_32_2_6_3	0.89395	0.00118	0.89631
nctf5bmt11_36_2_5_3	1.4	80	35231	28184	7719	7.15	1.0e-04	0.89457	0.00141	0.89739	hctf5bmt12_36_2_5_3	0.87726	0.00158	0.88041
nctf5bmt11_35_2_5_3	1.4	80	34303	27443	7768	7.39	1.0e-04	0.89528	0.00129	0.89787	hctf5bmt12_35_2_5_3	0.87420	0.00120	0.87660
nctf5bmt11_34_2_5_3	1.4	80	33376	26701	7817	7.64	1.0e-04	0.89346	0.00115	0.89576	hctf5bmt12_34_2_5_3	0.87530	0.00122	0.87775
nctf5bmt11_36_2_4_3	1.4	70	35275	24693	7719	8.16	1.0e-04	0.87119	0.00121	0.87361	hctf5bmt12_36_2_4_3	0.85030	0.00147	0.85323
nctf5bmt11_35_2_4_3	1.4	70	34347	24043	7768	8.43	1.0e-04	0.86740	0.00110	0.86959	hctf5bmt12_35_2_4_3	0.84958	0.00107	0.85173
nctf5bmt11_36_2_3_3	1.4	60	35320	21192	7719	9.51	1.0e-04	0.84212	0.00121	0.84454	hctf5bmt12_36_2_3_3	0.82413	0.00117	0.82647
nctf5bmt11_35_2_3_3	1.4	60	34391	20634	7768	9.83	1.0e-04	0.83953	0.00135	0.84223	hctf5bmt12_35_2_3_3	0.82142	0.00125	0.82393

Table 6.9.6-11b. Comparison of NCT results for HEU broken metal content in ES-3100 NCT packaging calculation models.
Reference results for content homogenized over volume of containment vessel are highlighted. Results shown below the reference results are for modified cases where the HEU packaging fraction varies from 0.2 to 0.6 and the content is homogenized with 500 g polyethylene.

nciabmt11	np (in.)	enr. (wt %)	U (g)	^{235}U (g)	H_2O (g)	h/x	moifr	k_{eff}	σ	$k_{eff}+2\sigma$				
nciapbmflt11	np (in.)	PF	U (g)	^{235}U (g)	H_2O (g)	h/x	moifr	k_{eff}	σ	$k_{eff}+2\sigma$	nciapbmfdt11	k_{eff}	σ	$k_{eff}+2\sigma$
content in flooded containment vessel, array packaging model for CSI=0.0														
no can spacers (np thickness = 0.0 in.)														
_4_1_5_3	0.0	80.0	3709	2967	10001	87.98	1.0e-04	0.91835	0.00149	0.92133				
_1_2_4_5	0.0	0.2	4000	3200	9443	82.26	1.0e-04	0.68903	0.00121	0.69146	_1_2_4_5	0.85247	0.00116	0.85479
_1_3_4_5	0.0	0.3	4000	3200	9443	82.26	1.0e-04	0.65516	0.00136	0.65788	_1_3_4_5	0.84236	0.00121	0.84477
_1_4_4_5	0.0	0.4	4000	3200	9443	82.26	1.0e-04	0.63720	0.00123	0.63965	_1_4_4_5	0.83993	0.00137	0.84267
_1_5_4_5	0.0	0.5	4000	3200	9443	82.26	1.0e-04	0.62195	0.00105	0.62405	_1_5_4_5	0.83701	0.00126	0.83953
_1_6_4_5	0.0	0.6	4000	3200	9443	82.26	1.0e-04	0.61282	0.00101	0.61484	_1_6_4_5	0.83523	0.00118	0.83758
_5_1_4_3	0.0	70.0	4642	3249	9952	79.95	1.0e-04	0.91799	0.00136	0.92070				
_1_2_5_4	0.0	0.2	5000	3500	9390	74.82	1.0e-04	0.70497	0.00140	0.70778	_1_2_5_4	0.85830	0.00155	0.86140
_1_3_5_4	0.0	0.3	5000	3500	9390	74.82	1.0e-04	0.66703	0.00120	0.66942	_1_3_5_4	0.85296	0.00124	0.85545
_1_4_5_4	0.0	0.4	5000	3500	9390	74.82	1.0e-04	0.64665	0.00120	0.64904	_1_4_5_4	0.84681	0.00155	0.84991
_1_5_5_4	0.0	0.5	5000	3500	9390	74.82	1.0e-04	0.63242	0.00127	0.63496	_1_5_5_4	0.84544	0.00142	0.84827
_1_6_5_4	0.0	0.6	5000	3500	9390	74.82	1.0e-04	0.62104	0.00129	0.62362	_1_6_5_4	0.84411	0.00122	0.84656
_6_1_3_3	0.0	60.0	5577	3346	9903	77.24	1.0e-04	0.91221	0.00147	0.91515				
_1_2_6_3	0.0	0.2	6000	3600	9338	72.36	1.0e-04	0.71137	0.00124	0.71386	_1_2_6_3	0.85681	0.00117	0.85916
_1_3_6_3	0.0	0.3	6000	3600	9338	72.36	1.0e-04	0.67406	0.00124	0.67654	_1_3_6_3	0.85226	0.00126	0.85478
_1_4_6_3	0.0	0.4	6000	3600	9338	72.36	1.0e-04	0.65407	0.00115	0.65637	_1_4_6_3	0.84813	0.00119	0.85052
_1_5_6_3	0.0	0.5	6000	3600	9338	72.36	1.0e-04	0.63393	0.00117	0.63626	_1_5_6_3	0.84385	0.00128	0.84642
_1_6_6_3	0.0	0.6	6000	3600	9338	72.36	1.0e-04	0.62196	0.00126	0.62449	_1_6_6_3	0.84286	0.00127	0.84541

Table 6.9.6-11b. Comparison of NCT results for HEU broken metal content in ES-3100 NCT packaging calculation models.
Reference results for content homogenized over volume of containment vessel are highlighted. Results shown below the reference results are for modified cases where the HEU packaging fraction varies from 0.2 to 0.6 and the content is homogenized with 500 g polyethylene.

nciabmt11	np (in.)	enr. (wt %)	U (g)	^{235}U (g)	H_2O (g)	h/x	moifr	k_{eff}	σ	$k_{eff}+2\sigma$				
nciapbmflt11	np (in.)	PF	U (g)	^{235}U (g)	H_2O (g)	h/x	moifr	k_{eff}	σ	$k_{eff}+2\sigma$	nciapbmfdt11	k_{eff}	σ	$k_{eff}+2\sigma$
with can spacers (np thickness = 1.4 in.)														
_3_2_8_3	1.4	100.0	2774	2774	9436	88.78	1.0e-04	0.90131	0.00139	0.90409				
_2_2_3_8	1.4	0.2	3000	3000	8882	82.86	1.0e-04	0.57463	0.00111	0.57684	_2_2_3_8	0.81623	0.00130	0.81883
_2_3_3_8	1.4	0.3	3000	3000	8882	82.86	1.0e-04	0.54703	0.00098	0.54900	_2_3_3_8	0.81643	0.00134	0.81912
_2_4_3_8	1.4	0.4	3000	3000	8882	82.86	1.0e-04	0.53274	0.00097	0.53467	_2_4_3_8	0.81357	0.00122	0.81600
_2_5_3_8	1.4	0.5	3000	3000	8882	82.86	1.0e-04	0.52613	0.00105	0.52822	_2_5_3_8	0.81038	0.00125	0.81288
_2_6_3_8	1.4	0.6	3000	3000	8882	82.86	1.0e-04	0.51882	0.00092	0.52065	_2_6_3_8	0.81249	0.00116	0.81482
_4_2_7_3	1.4	95.0	3701	3516	9387	69.68	1.0e-04	0.91690	0.00149	0.91987				
_2_2_4_7	1.4	0.2	4000	3800	8829	65.05	1.0e-04	0.61562	0.00115	0.61792	_2_2_4_7	0.85451	0.00154	0.85759
_2_3_4_7	1.4	0.3	4000	3800	8829	65.05	1.0e-04	0.58602	0.00121	0.58843	_2_3_4_7	0.84752	0.00128	0.85009
_2_4_4_7	1.4	0.4	4000	3800	8829	65.05	1.0e-04	0.56904	0.00124	0.57153	_2_4_4_7	0.84935	0.00118	0.85170
_2_5_4_7	1.4	0.5	4000	3800	8829	65.05	1.0e-04	0.55712	0.00096	0.55904	_2_5_4_7	0.84837	0.00138	0.85113
_2_6_4_7	1.4	0.6	4000	3800	8829	65.05	1.0e-04	0.55125	0.00100	0.55326	_2_6_4_7	0.84715	0.00114	0.84943
_4_2_6_3	1.4	90.0	3704	3333	9387	73.50	1.0e-04	0.90541	0.00147	0.90835				
_2_2_4_6	1.4	0.2	4000	3600	8829	68.67	1.0e-04	0.60511	0.00103	0.60717	_2_2_4_6	0.84248	0.00138	0.84524
_2_3_4_6	1.4	0.3	4000	3600	8829	68.67	1.0e-04	0.57445	0.00092	0.57628	_2_3_4_6	0.83740	0.00119	0.83978
_2_4_4_6	1.4	0.4	4000	3600	8829	68.67	1.0e-04	0.55835	0.00103	0.56041	_2_4_4_6	0.83957	0.00113	0.84184
_2_5_4_6	1.4	0.5	4000	3600	8829	68.67	1.0e-04	0.54727	0.00106	0.54939	_2_5_4_6	0.83601	0.00137	0.83875
_2_6_4_6	1.4	0.6	4000	3600	8829	68.67	1.0e-04	0.53974	0.00107	0.54189	_2_6_4_6	0.83732	0.00140	0.84011

Table 6.9.6-11b. Comparison of NCT results for HEU broken metal content in ES-3100 NCT packaging calculation models.
Reference results for content homogenized over volume of containment vessel are highlighted. Results shown below the reference results are for modified cases where the HEU packaging fraction varies from 0.2 to 0.6 and the content is homogenized with 500 g polyethylene.

nciabmt11	np (in.)	enr. (wt %)	U (g)	^{235}U (g)	H_2O (g)	h/x	moifr	k_{eff}	σ	$k_{eff}+2\sigma$				
nciapbmflt11	np (in.)	PF	U (g)	^{235}U (g)	H_2O (g)	h/x	moifr	k_{eff}	σ	$k_{eff}+2\sigma$	nciapbmfdt11	k_{eff}	σ	$k_{eff}+2\sigma$
_6_2_5_3	1.4	80.0	5563	4450	9289	54.48	1.0e-04	0.91981	0.00127	0.92235				
_2_2_6_5	1.4	0.2	6000	4800	8723	50.93	1.0e-04	0.66266	0.00117	0.66500	_2_2_6_5	0.87671	0.00141	0.87952
_2_3_6_5	1.4	0.3	6000	4800	8723	50.93	1.0e-04	0.62900	0.00108	0.63116	_2_3_6_5	0.87268	0.00141	0.87551
_2_4_6_5	1.4	0.4	6000	4800	8723	50.93	1.0e-04	0.60636	0.00106	0.60848	_2_4_6_5	0.87070	0.00137	0.87344
_2_5_6_5	1.4	0.5	6000	4800	8723	50.93	1.0e-04	0.59549	0.00110	0.59769	_2_5_6_5	0.87064	0.00126	0.87316
_2_6_6_5	1.4	0.6	6000	4800	8723	50.93	1.0e-04	0.58580	0.00104	0.58789	_2_6_6_5	0.86937	0.00136	0.87209
_8_2_4_3	1.4	70.0	7426	5198	9191	46.15	1.0e-04	0.91902	0.00137	0.92175				
_2_2_8_4	1.4	0.2	8000	5600	8618	43.16	1.0e-04	0.69894	0.00117	0.70128	_2_2_8_4	0.88757	0.00154	0.89065
_2_3_8_4	1.4	0.3	8000	5600	8618	43.16	1.0e-04	0.65861	0.00101	0.66064	_2_3_8_4	0.88142	0.00149	0.88440
_2_4_8_4	1.4	0.4	8000	5600	8618	43.16	1.0e-04	0.63538	0.00119	0.63775	_2_4_8_4	0.88292	0.00164	0.88621
_2_5_8_4	1.4	0.5	8000	5600	8618	43.16	1.0e-04	0.62021	0.00120	0.62260	_2_5_8_4	0.88202	0.00141	0.88484
_2_6_8_4	1.4	0.6	8000	5600	8618	43.16	1.0e-04	0.61023	0.00116	0.61255	_2_6_8_4	0.88175	0.00132	0.88439
_12_2_3_3	1.4	60.0	11154	6692	8995	35.08	1.0e-04	0.91502	0.00155	0.91812				
_2_2_12_3	1.4	0.2	12000	7200	8407	32.81	1.0e-04	0.75340	0.00124	0.75588	_2_2_12_3	0.90142	0.00133	0.90409
_2_3_12_3	1.4	0.3	12000	7200	8407	32.81	1.0e-04	0.71017	0.00101	0.71220	_2_3_12_3	0.90203	0.00119	0.90441
_2_4_12_3	1.4	0.4	12000	7200	8407	32.81	1.0e-04	0.68355	0.00103	0.68561	_2_4_12_3	0.89718	0.00145	0.90009
_2_5_12_3	1.4	0.5	12000	7200	8407	32.81	1.0e-04	0.66830	0.00090	0.67011	_2_5_12_3	0.90008	0.00114	0.90237
_2_6_12_3	1.4	0.6	12000	7200	8407	32.81	1.0e-04	0.65711	0.00100	0.65912	_2_6_12_3	0.89900	0.00120	0.90140

Table 6.9.6-11c. Comparison of HAC results for HEU broken metal content in ES-3100 HAC packaging calculation models.
Reference results for content homogenized over volume of containment vessel are highlighted. Results are for modified cases where the HEU packaging fraction varies from 0.2 to 0.6 and the content is homogenized with 500 g polyethylene.

hciabmt12	np (in.)	enr. (wt %)	U (g)	^{235}U (g)	H_2O (g)	h/x	moifr	k_{eff}	σ	$k_{eff}+2\sigma$				
hciapbmflt12	np (in.)	PF	U (g)	^{235}U (g)	H_2O (g)	h/x	moifr	k_{eff}	σ	$k_{eff}+2\sigma$	hciapbmfdt12	k_{eff}	σ	$k_{eff}+2\sigma$
content in flooded containment vessel, array packaging model for CSI=0.0														
no can spacers (np thickness = 0.0 in.)														
_4_1_5_3	0.0	80.0	3709	2967	10001	87.98	1.0e-04	0.92156	0.00160	0.92476				
_1_2_4_5	0.0	0.2	4000	3200	9443	82.26	1.0e-04	0.69676	0.00134	0.69944	_1_2_4_5	0.85244	0.00119	0.85481
_1_3_4_5	0.0	0.3	4000	3200	9443	82.26	1.0e-04	0.66231	0.00119	0.66469	_1_3_4_5	0.84158	0.00146	0.84451
_1_4_4_5	0.0	0.4	4000	3200	9443	82.26	1.0e-04	0.64127	0.00133	0.64392	_1_4_4_5	0.84036	0.00120	0.84276
_1_5_4_5	0.0	0.5	4000	3200	9443	82.26	1.0e-04	0.62704	0.00115	0.62934	_1_5_4_5	0.83647	0.00127	0.83901
_1_6_4_5	0.0	0.6	4000	3200	9443	82.26	1.0e-04	0.61943	0.00110	0.62164	_1_6_4_5	0.83721	0.00128	0.83977
_5_1_4_3	0.0	70.0	4642	3249	9952	79.95	1.0e-04	0.92053	0.00147	0.92347				
_1_2_5_4	0.0	0.2	5000	3500	9390	74.82	1.0e-04	0.71271	0.00111	0.71494	_1_2_5_4	0.86056	0.00125	0.86305
_1_3_5_4	0.0	0.3	5000	3500	9390	74.82	1.0e-04	0.67372	0.00145	0.67662	_1_3_5_4	0.85614	0.00119	0.85851
_1_4_5_4	0.0	0.4	5000	3500	9390	74.82	1.0e-04	0.65481	0.00129	0.65738	_1_4_5_4	0.84829	0.00144	0.85117
_1_5_5_4	0.0	0.5	5000	3500	9390	74.82	1.0e-04	0.63822	0.00113	0.64047	_1_5_5_4	0.84683	0.00118	0.84919
_1_6_5_4	0.0	0.6	5000	3500	9390	74.82	1.0e-04	0.62688	0.00106	0.62899	_1_6_5_4	0.84497	0.00128	0.84754
_6_1_3_3	0.0	60.0	5577	3346	9903	77.24	1.0e-04	0.91017	0.00128	0.91274				
_1_2_6_3	0.0	0.2	6000	3600	9338	72.36	1.0e-04	0.71739	0.00119	0.71977	_1_2_6_3	0.85989	0.00142	0.86273
_1_3_6_3	0.0	0.3	6000	3600	9338	72.36	1.0e-04	0.68131	0.00126	0.68383	_1_3_6_3	0.85119	0.00113	0.85345
_1_4_6_3	0.0	0.4	6000	3600	9338	72.36	1.0e-04	0.65662	0.00118	0.65898	_1_4_6_3	0.84466	0.00126	0.84718
_1_5_6_3	0.0	0.5	6000	3600	9338	72.36	1.0e-04	0.63993	0.00109	0.64211	_1_5_6_3	0.84460	0.00144	0.84749
_1_6_6_3	0.0	0.6	6000	3600	9338	72.36	1.0e-04	0.62949	0.00119	0.63187	_1_6_6_3	0.84243	0.00125	0.84493

Table 6.9.6-11c. Comparison of HAC results for HEU broken metal content in ES-3100 HAC packaging calculation models.
Reference results for content homogenized over volume of containment vessel are highlighted. Results are for modified cases where the HEU packaging fraction varies from 0.2 to 0.6 and the content is homogenized with 500 g polyethylene.

hciabmt12	np (in.)	enr. (wt %)	U (g)	^{235}U (g)	H_2O (g)	h/x	moifr	k_{eff}	σ	$k_{eff}+2\sigma$				
hciapbmflt12	np (in.)	PF	U (g)	^{235}U (g)	H_2O (g)	h/x	moifr	k_{eff}	σ	$k_{eff}+2\sigma$	hciapbmfdt12	k_{eff}	σ	$k_{eff}+2\sigma$
with can spacers (np thickness = 1.4 in.)														
_3_2_8_3	1.4	100.0	2774	2774	9436	88.78	1.0e-04	0.90243	0.00127	0.90497				
_2_2_3_8	1.4	0.2	3000	3000	8882	82.86	1.0e-04	0.57951	0.00103	0.58157	_2_2_3_8	0.81782	0.00115	0.82012
_2_3_3_8	1.4	0.3	3000	3000	8882	82.86	1.0e-04	0.55359	0.00094	0.55547	_2_3_3_8	0.81514	0.00148	0.81810
_2_4_3_8	1.4	0.4	3000	3000	8882	82.86	1.0e-04	0.53870	0.00102	0.54075	_2_4_3_8	0.81423	0.00122	0.81666
_2_5_3_8	1.4	0.5	3000	3000	8882	82.86	1.0e-04	0.52950	0.00097	0.53143	_2_5_3_8	0.81351	0.00131	0.81613
_2_6_3_8	1.4	0.6	3000	3000	8882	82.86	1.0e-04	0.52360	0.00120	0.52599	_2_6_3_8	0.81065	0.00127	0.81320
_4_2_7_3	1.4	95.0	3701	3516	9387	69.68	1.0e-04	0.92094	0.00140	0.92374				
_2_2_4_7	1.4	0.2	4000	3800	8829	65.05	1.0e-04	0.62129	0.00113	0.62355	_2_2_4_7	0.85574	0.00150	0.85874
_2_3_4_7	1.4	0.3	4000	3800	8829	65.05	1.0e-04	0.59045	0.00106	0.59256	_2_3_4_7	0.85080	0.00142	0.85364
_2_4_4_7	1.4	0.4	4000	3800	8829	65.05	1.0e-04	0.57686	0.00095	0.57875	_2_4_4_7	0.84954	0.00126	0.85205
_2_5_4_7	1.4	0.5	4000	3800	8829	65.05	1.0e-04	0.56383	0.00096	0.56576	_2_5_4_7	0.84837	0.00159	0.85155
_2_6_4_7	1.4	0.6	4000	3800	8829	65.05	1.0e-04	0.55861	0.00120	0.56100	_2_6_4_7	0.85112	0.00127	0.85366
_4_2_6_3	1.4	90.0	3704	3333	9387	73.50	1.0e-04	0.90643	0.00133	0.90909				
_2_2_4_6	1.4	0.2	4000	3600	8829	68.67	1.0e-04	0.61197	0.00116	0.61429	_2_2_4_6	0.84318	0.00154	0.84626
_2_3_4_6	1.4	0.3	4000	3600	8829	68.67	1.0e-04	0.58023	0.00112	0.58248	_2_3_4_6	0.83944	0.00123	0.84190
_2_4_4_6	1.4	0.4	4000	3600	8829	68.67	1.0e-04	0.56418	0.00111	0.56641	_2_4_4_6	0.83754	0.00123	0.84000
_2_5_4_6	1.4	0.5	4000	3600	8829	68.67	1.0e-04	0.55222	0.00100	0.55423	_2_5_4_6	0.83876	0.00144	0.84163
_2_6_4_6	1.4	0.6	4000	3600	8829	68.67	1.0e-04	0.54866	0.00099	0.55063	_2_6_4_6	0.83719	0.00119	0.83958

Table 6.9.6-11c. Comparison of HAC results for HEU broken metal content in ES-3100 HAC packaging calculation models.
Reference results for content homogenized over volume of containment vessel are highlighted. Results are for modified cases where the HEU packaging fraction varies from 0.2 to 0.6 and the content is homogenized with 500 g polyethylene.

hciabmt12	np (in.)	enr. (wt %)	U (g)	^{235}U (g)	H_2O (g)	h/x	moifr	k_{eff}	σ	$k_{eff}+2\sigma$				
hciapbmflt12	np (in.)	PF	U (g)	^{235}U (g)	H_2O (g)	h/x	moifr	k_{eff}	σ	$k_{eff}+2\sigma$	hciapbmfdt12	k_{eff}	σ	$k_{eff}+2\sigma$
_6_2_5_3	1.4	80.0	5563	4450	9289	54.48	1.0e-04	0.91987	0.00157	0.92301				
_2_2_6_5	1.4	0.2	6000	4800	8723	50.93	1.0e-04	0.67004	0.00099	0.67203	_2_2_6_5	0.87714	0.00150	0.88015
_2_3_6_5	1.4	0.3	6000	4800	8723	50.93	1.0e-04	0.63588	0.00098	0.63783	_2_3_6_5	0.87335	0.00149	0.87633
_2_4_6_5	1.4	0.4	6000	4800	8723	50.93	1.0e-04	0.61580	0.00114	0.61809	_2_4_6_5	0.87067	0.00120	0.87306
_2_5_6_5	1.4	0.5	6000	4800	8723	50.93	1.0e-04	0.60063	0.00111	0.60284	_2_5_6_5	0.87386	0.00137	0.87660
_2_6_6_5	1.4	0.6	6000	4800	8723	50.93	1.0e-04	0.59340	0.00097	0.59534	_2_6_6_5	0.87070	0.00141	0.87353
_8_2_4_3	1.4	70.0	7426	5198	9191	46.15	1.0e-04	0.91835	0.00126	0.92086				
_2_2_8_4	1.4	0.2	8000	5600	8618	43.16	1.0e-04	0.70405	0.00125	0.70655	_2_2_8_4	0.88804	0.00136	0.89077
_2_3_8_4	1.4	0.3	8000	5600	8618	43.16	1.0e-04	0.66628	0.00114	0.66856	_2_3_8_4	0.88503	0.00118	0.88740
_2_4_8_4	1.4	0.4	8000	5600	8618	43.16	1.0e-04	0.64431	0.00125	0.64681	_2_4_8_4	0.88186	0.00141	0.88467
_2_5_8_4	1.4	0.5	8000	5600	8618	43.16	1.0e-04	0.62989	0.00106	0.63201	_2_5_8_4	0.88416	0.00142	0.88701
_2_6_8_4	1.4	0.6	8000	5600	8618	43.16	1.0e-04	0.61934	0.00096	0.62126	_2_6_8_4	0.88358	0.00130	0.88618
_12_2_3_3	1.4	60.0	11154	6692	8995	35.08	1.0e-04	0.91776	0.00138	0.92053				
_2_2_12_3	1.4	0.2	12000	7200	8407	32.81	1.0e-04	0.75872	0.00115	0.76102	_2_2_12_3	0.90576	0.00134	0.90845
_2_3_12_3	1.4	0.3	12000	7200	8407	32.81	1.0e-04	0.71743	0.00106	0.71954	_2_3_12_3	0.90165	0.00138	0.90440
_2_4_12_3	1.4	0.4	12000	7200	8407	32.81	1.0e-04	0.69072	0.00115	0.69301	_2_4_12_3	0.90012	0.00124	0.90260
_2_5_12_3	1.4	0.5	12000	7200	8407	32.81	1.0e-04	0.67462	0.00099	0.67660	_2_5_12_3	0.89870	0.00124	0.90118
_2_6_12_3	1.4	0.6	12000	7200	8407	32.81	1.0e-04	0.66490	0.00106	0.66702	_2_6_12_3	0.90032	0.00117	0.90267

Table 6.9.6-12. Results for HEU oxide content in CV calculation model

case name (cvcrpdoxt11)	Ox (g)	^{235}U (g)	Ox density (g/cm^3)	Ox volume (cm^3)	Sat. H_2O (g)	CV H_2O (g)	h/x	mocfr	k_{eff}	σ	$k_{eff}+2\sigma$
UO_2 content, 500 g polyethylene, flooded containment vessel, reflected											
_1_3_24_15	24000	21125	4.00	6000	3803	3665	10.02	1.0e+00	0.91157	0.00138	0.91434
_1_4_24_15	24000	21125	5.00	4800	2606	4863	10.02	1.0e+00	0.90264	0.00139	0.90541
_1_5_24_15	24000	21125	6.54	5000	1477	5991	10.02	1.0e+00	0.89152	0.00115	0.89382
_1_2_20_15	20000	17604	3.00	6667	4833	3000	12.57	1.0e+00	0.90943	0.00117	0.91177
_1_3_20_15	20000	17604	4.00	5000	3170	4663	12.57	1.0e+00	0.89797	0.00129	0.90055
_1_4_20_15	20000	17604	5.00	4000	2171	5662	12.57	1.0e+00	0.89035	0.00121	0.89278
_1_5_20_15	20000	17604	6.54	3058	1231	6602	12.57	1.0e+00	0.87565	0.00112	0.87789
_1_2_15_15	15000	13203	3.00	5000	3625	4664	17.66	1.0e+00	0.89891	0.00138	0.90166
_1_3_15_15	15000	13203	4.00	3750	2377	5911	17.66	1.0e+00	0.87963	0.00116	0.88195
_1_4_15_15	15000	13203	5.00	3000	1629	6660	17.66	1.0e+00	0.86309	0.00134	0.86578
_1_5_15_15	15000	13203	6.54	2294	923	7365	17.66	1.0e+00	0.84270	0.00121	0.84513
14,000 g UO_2 content, 500 g polyethylene, flooded containment vessel, reflected											
_1_1_14_15	14000	12323	2.00	7000	5712	2667	19.11	1.0e+00	0.90801	0.00154	0.91110
_1_2_14_15	14000	12323	3.00	4667	3383	4996	19.11	1.0e+00	0.89261	0.00124	0.89510
_1_3_14_15	14000	12323	4.00	3500	2219	6161	19.11	1.0e+00	0.87604	0.00119	0.87842
_1_4_14_15	14000	12323	5.00	2800	1520	6860	19.11	1.0e+00	0.85585	0.00139	0.85863
_1_5_14_15	14000	12323	6.54	2141	862	7518	19.11	1.0e+00	0.83530	0.00112	0.83755
14,000 g U_3O_8 content, 500 g polyethylene, flooded containment vessel, reflected											
_2_1_14_15	14000	11850	2.00	7000	5304	2667	18.97	1.0e+00	0.88331	0.00144	0.88620
_2_2_14_15	14000	11850	3.00	4667	2975	4996	18.97	1.0e+00	0.85075	0.00129	0.85333
_2_3_14_15	14000	11850	4.00	3500	1810	6161	18.97	1.0e+00	0.82386	0.00123	0.82632
_2_4_14_15	14000	11850	5.00	2800	1111	6860	18.97	1.0e+00	0.79922	0.00143	0.80209
_2_5_14_15	14000	11850	6.54	2141	453	7518	18.97	1.0e+00	0.76510	0.00114	0.76738

Table 6.9.6-12. Results for HEU oxide content in CV calculation model

case name (cvcrpdoxt11)	Ox (g)	^{235}U (g)	Ox density (g/cm^3)	Ox volume (cm^3)	Sat. H_2O (g)	CV H_2O (g)	h/x	mocfr	k_{eff}	σ	$k_{eff}+2\sigma$
14,000 g UO_3 content, 500 g polyethylene, flooded containment vessel, reflected											
_3_1_14_15	14000	11627	2.00	7000	5071	2667	18.81	1.0e+00	0.86835	0.00122	0.87079
_3_2_14_15	14000	11627	3.00	4667	2741	4996	18.81	1.0e+00	0.83069	0.00119	0.83307
_3_3_14_15	14000	11627	4.00	3500	1577	6161	18.81	1.0e+00	0.79457	0.00132	0.79720
_3_4_14_15	14000	11627	5.00	2800	878	6860	18.81	1.0e+00	0.76399	0.00140	0.76679
_3_5_14_15	14000	11627	6.54	2141	220	7518	18.81	1.0e+00	0.72235	0.00127	0.72490
14,000 g UO_2 content, 500 g polyethylene, dry containment vessel, reflected											
_1_1_14_1	14000	12323	2.00	7000	5712	0	13.46	1.0e-20	0.90869	0.00156	0.91180
_1_2_14_1	14000	12323	3.00	4667	3383	0	8.53	1.0e-20	0.88628	0.00144	0.88916
_1_3_14_1	14000	12323	4.00	3500	2219	0	6.06	1.0e-20	0.86750	0.00131	0.87012
_1_4_14_1	14000	12323	5.00	2800	1520	0	4.58	1.0e-20	0.84555	0.00151	0.84857
_1_5_14_1	14000	12323	6.54	2141	862	0	3.19	1.0e-20	0.82157	0.00109	0.82375
UO_2 content, 2.0 g/cm^3 oxide density , 500 g polyethylene, flooded containment vessel, reflected											
_1_1_14_15	14000	12323	2.00	7000	5712	2667	19.11	1.0e+00	0.90801	0.00154	0.91110
_1_1_13_15	13000	11443	2.00	6500	5304	3166	20.79	1.0e+00	0.91011	0.00123	0.91258
_1_1_12_15	12000	10562	2.00	6000	4896	3665	22.74	1.0e+00	0.90176	0.00141	0.90457
_1_1_11_15	11000	9682	2.00	5500	4488	4164	25.06	1.0e+00	0.89737	0.00154	0.90044
_1_1_10_15	10000	8802	2.00	5000	4080	4663	27.83	1.0e+00	0.89620	0.00130	0.89880
_1_1_9_15	9000	7922	2.00	4500	3672	5163	31.23	1.0e+00	0.88551	0.00161	0.88872
_1_1_8_15	8000	7042	2.00	4000	3264	5662	35.47	1.0e+00	0.87598	0.00157	0.87912
_1_1_7_15	7000	6162	2.00	3500	2856	6161	40.92	1.0e+00	0.86765	0.00148	0.87061
_1_1_6_15	6000	5281	2.00	3000	2448	6660	48.19	1.0e+00	0.85412	0.00120	0.85652
_1_1_5_15	5000	4401	2.00	2500	2040	7159	58.37	1.0e+00	0.83022	0.00138	0.83298
_1_1_4_15	4000	3521	2.00	2000	1632	7658	73.63	1.0e+00	0.80856	0.00156	0.81168

Table 6.9.6-12. Results for HEU oxide content in CV calculation model

case name (cvcrpdoxt11)	Ox (g)	^{235}U (g)	Ox density (g/cm^3)	Ox volume (cm^3)	Sat. H_2O (g)	CV H_2O (g)	h/x	mocfr	k_{eff}	σ	$k_{eff}+2\sigma$
_1_1_3_15	3000	2641	2.00	1500	1224	8157	99.08	1.0e+00	0.77245	0.00147	0.77539
_1_1_2_15	2000	1761	2.00	1000	816	8656	149.96	1.0e+00	0.72062	0.00132	0.72326
_1_1_1_15	1000	880	2.00	500	408	9155	302.58	1.0e+00	0.63401	0.00126	0.63653

Table 6.9.6-13. Results for HEU product oxide content at 6.54 g/cm^3 in single-unit packaging calculation model

case name	Ox (g)	^{235}U (g)	Sat. H_2O (g)	CV H_2O (g)	h/x	moifr	k_{eff}	σ	$k_{eff}+2\sigma$	case name	k_{eff}	σ	$k_{eff}+2\sigma$
UO_2 content and 500 g polyethylene in flooded containment vessel, single package reflected													
NCT										HAC			
ncsrpoxt11_1_24_1	24000	21125	1477	5991	10.02	1.0e-20	0.72148	0.00120	0.72388				
ncsrpoxt11_1_24_2	24000	21125	1477	5991	10.02	1.0e-05	0.71942	0.00107	0.72156				
ncsrpoxt11_1_24_3	24000	21125	1477	5991	10.02	0.0e+00	0.71790	0.00122	0.72035				
ncsrpoxt11_1_24_4	24000	21125	1477	5991	10.02	1.0e-03	0.72072	0.00154	0.72380				
ncsrpoxt11_1_24_5	24000	21125	1477	5991	10.02	1.0e-02	0.71999	0.00123	0.72244				
ncsrpoxt11_1_24_6	24000	21125	1477	5991	10.02	1.0e-01	0.72828	0.00103	0.73035				
ncsrpoxt11_1_24_8	24000	21125	1477	5991	10.02	3.0e-01	0.74362	0.00123	0.74607				
ncsrpoxt11_1_24_15	24000	21125	1477	5991	10.02	1.0e+00	0.80222	0.00108	0.80438				

Table 6.9.6-13a. Results for HEU oxide content in single-unit packaging calculation model

case name (ncsrpdoxt11)	Ox (g)	^{235}U (g)	Ox den. (g/cm^3)	Ox vol. (cm^3)	Sat. H_2O (g)	CV H_2O (g)	h/x	k_{eff}	σ	$k_{eff}+2\sigma$	case name (hcsrpdoxt12)	k_{eff}	σ	$k_{eff}+2\sigma$
UO_2 content and 500 g polyethylene in flooded containment vessel, flooded package														
NCT											**HAC**			
_1_3_24	24000	21125	4.00	6000	3803	3665	10.02	0.81371	0.00144	0.81659	_1_3_24	0.81599	0.00133	0.81865
_1_4_24	24000	21125	5.00	4800	2606	4863	10.02	0.80666	0.00111	0.80887	_1_4_24	0.81112	0.00119	0.81350
_1_5_24	24000	21125	6.54	3670	1477	5991	10.02	0.80222	0.00108	0.80438	_1_5_24	0.80624	0.00114	0.80852
_1_2_20	20000	17604	3.00	6667	4833	3000	12.57	0.81352	0.00155	0.81662	_1_2_20	0.81200	0.00136	0.81472
_1_3_20	20000	17604	4.00	5000	3170	4663	12.57	0.80451	0.00124	0.80698	_1_3_20	0.80524	0.00118	0.80760
_1_4_20	20000	17604	5.00	4000	2171	5662	12.57	0.79655	0.00129	0.79914	_1_4_20	0.79813	0.00137	0.80087
_1_5_20	20000	17604	6.54	3058	1231	6602	12.57	0.78510	0.00133	0.78775	_1_5_20	0.78801	0.00121	0.79043
_1_2_15	15000	13203	3.00	5000	3625	4664	17.66	0.79666	0.00133	0.79933	_1_2_15	0.79891	0.00149	0.80189
_1_3_15	15000	13203	4.00	3750	2377	5911	17.66	0.78374	0.00123	0.78619	_1_3_15	0.78801	0.00130	0.79061
_1_4_15	15000	13203	5.00	3000	1629	6660	17.66	0.77585	0.00104	0.77794	_1_4_15	0.77767	0.00131	0.78028
_1_5_15	15000	13203	6.54	2294	923	7365	17.66	0.75988	0.00120	0.76228	_1_5_15	0.76047	0.00122	0.76291
UO_2, content and 500 g polyethylene in flooded containment vessel, flooded package														
NCT											**HAC**			
_1_1_14	14000	12323	2.00	7000	5712	2667	19.11	0.81144	0.00130	0.81403	_1_1_14	0.80983	0.00147	0.81276
_1_2_14	14000	12323	3.00	4667	3383	4996	19.11	0.79632	0.00134	0.79900	_1_2_14	0.79412	0.00155	0.79722
_1_3_14	14000	12323	4.00	3500	2219	6161	19.11	0.78024	0.00138	0.78300	_1_3_14	0.78251	0.00141	0.78533
_1_4_14	14000	12323	5.00	2800	1520	6860	19.11	0.76867	0.00119	0.77106	_1_4_14	0.77186	0.00130	0.77446
_1_5_14	14000	12323	6.54	2141	862	7518	19.11	0.75106	0.00143	0.75393	_1_5_14	0.75712	0.00132	0.75975
UO_3 content and 500 g polyethylene in flooded containment vessel, flooded package														
_2_1_14	14000	11850	2.00	7000	5304	2667	18.97	0.77449	0.00162	0.77772	_2_1_14	0.77571	0.00138	0.77847
_2_2_14	14000	11850	3.00	4667	2975	4996	18.97	0.75132	0.00141	0.75415	_2_2_14	0.74985	0.00135	0.75256
_2_3_14	14000	11850	4.00	3500	1810	6161	18.97	0.72213	0.00119	0.72452	_2_3_14	0.72485	0.00112	0.72708

Table 6.9.6-13a. Results for HEU oxide content in single-unit packaging calculation model

case name (ncsrpdoxt11)	Ox (g)	^{235}U (g)	Ox den. (g/cm^3)	Ox vol. (cm^3)	Sat. H_2O (g)	CV H_2O (g)	h/x	k_{eff}	σ	$k_{eff}+2\sigma$	case name (hcsrpdoxt12)	k_{eff}	σ	$k_{eff}+2\sigma$
_2_4_14	14000	11850	5.00	2800	1111	6860	18.97	0.70025	0.00132	0.70289	_2_4_14	0.70229	0.00135	0.70498
_2_5_14	14000	11850	6.54	2141	453	7518	18.97	0.66897	0.00140	0.67177	_2_5_14	0.67431	0.00107	0.67645
U_3O_8 content and 500 g polyethylene in flooded containment vessel, flooded package														
_3_1_14	14000	11627	2.00	7000	5071	2667	18.81	0.75704	0.00138	0.75980	_3_1_14	0.75676	0.00139	0.75954
_3_2_14	14000	11627	3.00	4667	2741	4996	18.81	0.72097	0.00124	0.72345	_3_2_14	0.72300	0.00121	0.72542
_3_3_14	14000	11627	4.00	3500	1577	6161	18.81	0.69035	0.00114	0.69263	_3_3_14	0.69274	0.00112	0.69498
_3_4_14	14000	11627	5.00	2800	878	6860	18.81	0.66080	0.00123	0.66326	_3_4_14	0.66443	0.00115	0.66674
_3_5_14	14000	11627	6.54	2141	220	7518	18.81	0.62168	0.00129	0.62427	_3_5_14	0.62544	0.00118	0.62780

Table 6.9.6-13b. Results for HEU oxide content in array packaging calculation model

case name (nciapdoxt11)	Ox (g)	^{235}U (g)	Ox den. (g/cm^3)	Ox vol. (cm^3)	Sat. H_2O (g)	CV H_2O (g)	h/x	k_{eff}	σ	$k_{eff}+2\sigma$	case name (hciapdoxt12)	k_{eff}	σ	$k_{eff}+2\sigma$
UO_2 content and 500 g polyethylene in flooded containment vessel, array packaging model for CSI=0.0														
NCT											HAC			
_1_3_24_3	24000	21125	4.00	6000	3803	3665	10.02	0.96758	0.00121	0.97000	_1_3_24_3	0.96822	0.00124	0.97070
_1_4_24_3	24000	21125	5.00	4800	2606	4863	10.02	0.94340	0.00119	0.94578	_1_4_24_3	0.94131	0.00115	0.94360
_1_5_24_3	24000	21125	6.54	3670	1477	5991	10.02	0.91495	0.00134	0.91764	_1_5_24_3	0.91666	0.00106	0.91878
_1_2_20_3	20000	17604	3.00	6667	4833	3000	12.57	0.97118	0.00122	0.97363	_1_2_20_3	0.97255	0.00139	0.97532
_1_3_20_3	20000	17604	4.00	5000	3170	4663	12.57	0.93543	0.00122	0.93786	_1_3_20_3	0.93616	0.00141	0.93897
_1_4_20_3	20000	17604	5.00	4000	2171	5662	12.57	0.91167	0.00117	0.91401	_1_4_20_3	0.91202	0.00126	0.91453
_1_5_20_3	20000	17604	6.54	3058	1231	6602	12.57	0.88413	0.00124	0.88661	_1_5_20_3	0.88426	0.00137	0.88700
_1_2_15_3	15000	13203	3.00	5000	3625	4664	17.66	0.92181	0.00128	0.92438	_1_2_15_3	0.92129	0.00139	0.92407
_1_3_15_3	15000	13203	4.00	3750	2377	5911	17.66	0.88533	0.00117	0.88767	_1_3_15_3	0.88414	0.00125	0.88663

Table 6.9.6-13b. Results for HEU oxide content in array packaging calculation model

case name (nciapdoxt11)	Ox (g)	^{235}U (g)	Ox den. (g/cm^3)	Ox vol. (cm^3)	Sat. H_2O (g)	CV H_2O (g)	h/x	k_{eff}	σ	$k_{eff}+2\sigma$	case name (hciapdoxt12)	k_{eff}	σ	$k_{eff}+2\sigma$
_1_4_15_3	15000	13203	5.00	3000	1628	6660	17.66	0.86168	0.00116	0.86400	_1_4_15_3	0.86039	0.00117	0.86273
_1_5_15_3	15000	13203	6.54	2294	923	7365	17.66	0.83434	0.00122	0.83678	_1_5_15_3	0.83140	0.00111	0.83363
_1_1_12_3	12000	10562	2.00	6000	4896	3665	22.74	0.93409	0.00140	0.93688	_1_1_12_3	0.93732	0.00137	0.94006
_1_2_12_3	12000	10562	3.00	4000	2900	5662	22.74	0.88391	0.00131	0.88652	_1_2_12_3	0.88387	0.00121	0.88630
_1_3_12_3	12000	10562	4.00	3000	1902	6660	22.74	0.85157	0.00111	0.85379	_1_3_12_3	0.84658	0.00133	0.84925
_1_4_12_3	12000	10562	5.00	2400	1303	7259	22.74	0.82574	0.00128	0.82831	_1_4_12_3	0.82349	0.00119	0.82587
_1_5_12_3	12000	10562	6.54	1835	739	7823	22.74	0.79328	0.00110	0.79548	_1_5_12_3	0.79233	0.00121	0.79475
_1_1_11_3	11000	9682	2.00	5500	4488	4164	25.06	0.91822	0.00129	0.92079	_1_1_11_3	0.92203	0.00134	0.92471
_1_2_11_3	11000	9682	3.00	3667	2658	5994	25.06	0.86689	0.00129	0.86946	_1_2_11_3	0.87093	0.00135	0.87364
_1_3_11_3	11000	9682	4.00	2750	1743	6909	25.06	0.83492	0.00133	0.83757	_1_3_11_3	0.83515	0.00124	0.83763
_1_4_11_3	11000	9682	5.00	2200	1194	7458	25.06	0.80930	0.00149	0.81227	_1_4_11_3	0.80948	0.00129	0.81205
_1_5_11_3	11000	9682	6.54	1682	677	7976	25.06	0.77906	0.00100	0.78106	_1_5_11_3	0.77935	0.00118	0.78171
_1_1_10_3	10000	8802	2.00	5000	4080	4663	27.83	0.90471	0.00131	0.90733	_1_1_10_3	0.90600	0.00128	0.90856
_1_1_9_3	9000	7922	2.00	4500	3672	5163	31.23	0.88936	0.00137	0.89210	_1_1_9_3	0.88714	0.00123	0.88960
_1_1_8_3	8000	7042	2.00	4000	3264	5662	35.47	0.86854	0.00144	0.87141	_1_1_8_3	0.86980	0.00145	0.87270
_1_1_7_3	7000	6162	2.00	3500	2856	6161	40.92	0.84876	0.00125	0.85126	_1_1_7_3	0.84926	0.00133	0.85192
_1_1_6_3	6000	5281	2.00	3000	2448	6660	48.19	0.82546	0.00127	0.82800	_1_1_6_3	0.82275	0.00135	0.82544
UO_2, UO_3, or U_3O_8 content and 500 g polyethylene in flooded containment vessel, array packaging model for CSI=0.0														
_1_1_7_3	7000	6162	2.00	3500	2856	6161	40.92	0.84876	0.00125	0.85126	_1_1_7_3	0.84926	0.00133	0.85192
_2_1_7_3	7000	5925	2.00	3500	2652	6161	41.65	0.81721	0.00130	0.81980	_2_1_7_3	0.81943	0.00125	0.82194
_3_1_7_3	7000	5813	2.00	3500	2535	6161	41.93	0.80044	0.00129	0.80302	_3_1_7_3	0.80086	0.00134	0.80355

Table 6.9.6-14. Results for UNX crystal content in CV calculation model

case name	unh (g)	^{235}U (g)	unh H_2O (g)	CV H_2O (g)	h/x	gU/l	mocfr	k_{eff}	σ	$k_{eff}+2\sigma$				
UNH crystal content, 0 g polyethylene, flooded containment vessel, reflected														
cvcrunhct11_24_1	24000	11303	5197	1620	15.74	1106	1.0e+00	0.82007	0.00128	0.82262				
cvcrunhct11_23_1	23000	10832	4980	1978	16.77	1060	1.0e+00	0.82120	0.00129	0.82378				
cvcrunhct11_22_1	22000	10361	4764	2335	17.88	1014	1.0e+00	0.82675	0.00122	0.82919				
cvcrunhct11_21_1	21000	9890	4547	2693	19.11	968	1.0e+00	0.82938	0.00118	0.83174				
cvcrunhct11_20_1	20000	9419	4331	3050	20.45	922	1.0e+00	0.83221	0.00129	0.83480				
cvcrunhct11_19_1	19000	8948	4114	3407	21.94	876	1.0e+00	0.83423	0.00152	0.83728				
cvcrunhct11_18_1	18000	8477	3898	3765	23.59	830	1.0e+00	0.83622	0.00128	0.83878				
cvcrunhct11_17_1	17000	8006	3681	4122	25.44	784	1.0e+00	0.84032	0.00167	0.84365				
cvcrunhct11_16_1	16000	7536	3464	4479	27.51	738	1.0e+00	0.84509	0.00151	0.84811				
cvcrunhct11_15_1	15000	7064	3248	4837	29.87	692	1.0e+00	0.84402	0.00133	0.84667				
cvcrunhct11_14_1	14000	6594	3031	5194	32.56	645	1.0e+00	0.84915	0.00130	0.85175				
cvcrunhct11_13_1	13000	6123	2815	5551	35.67	599	1.0e+00	0.84986	0.00127	0.85241				
cvcrunhct11_12_1	12000	5652	2598	5909	39.29	553	1.0e+00	0.85138	0.00159	0.85456				
cvcrunhct11_11_1	11000	5181	2382	6266	43.57	507	1.0e+00	0.85137	0.00136	0.85408				
cvcrunhct11_10_1	10000	4710	2165	6623	48.71	461	1.0e+00	0.85062	0.00149	0.85359				
cvcrunhct11_9_1	9000	4239	1949	6981	54.99	415	1.0e+00	0.85423	0.00147	0.85718				
cvcrunhct11_8_1	8000	3768	1732	7338	62.83	369	1.0e+00	0.84783	0.00152	0.85088				
cvcrunhct11_7_1	7000	3297	1516	7695	72.92	323	1.0e+00	0.84713	0.00166	0.85044				
cvcrunhct11_6_1	6000	2826	1299	8053	86.38	277	1.0e+00	0.83915	0.00151	0.84218				
cvcrunhct11_5_1	5000	2355	1083	8410	105.2	231	1.0e+00	0.82865	0.00177	0.83220				
cvcrunhct11_4_1	4000	1884	866	8768	133.5	184	1.0e+00	0.81158	0.00162	0.81483				
cvcrunhct11_3_1	3000	1413	650	9125	180.6	138	1.0e+00	0.78282	0.00120	0.78522				

Table 6.9.6-14. Results for UNX crystal content in CV calculation model

case name	unh (g)	^{235}U (g)	unh H_2O (g)	CV H_2O (g)	h/x	gU/l	mocfr	k_{eff}	σ	$k_{eff}+2\sigma$				
cvcrunhct11_2_1	2000	942	433	9482	274.7	92	1.0e+00	0.73150	0.00114	0.73377				
cvcrunhct11_1_1	1000	471	217	9840	557.2	46	1.0e+00	0.60716	0.00106	0.60927				
UNH crystal content, 500 g polyethylene, flooded containment vessel, reflected														
cvcrpunhct11_24_15	24000	11303	5197	1078	15.97	1106	1.0e+00	0.82422	0.00129	0.82681				
cvcrpunhct11_23_15	23000	10832	4980	1435	17.01	1060	1.0e+00	0.82842	0.00146	0.83134				
cvcrpunhct11_22_15	22000	10361	4764	1793	18.13	1014	1.0e+00	0.83462	0.00156	0.83773				
cvcrpunhct11_21_15	21000	9890	4547	2150	19.37	968	1.0e+00	0.83608	0.00149	0.83906				
cvcrpunhct11_20_15	20000	9419	4331	2507	20.73	922	1.0e+00	0.84111	0.00143	0.84397				
cvcrpunhct11_19_15	19000	8948	4114	2865	22.23	876	1.0e+00	0.84084	0.00135	0.84355				
cvcrpunhct11_18_15	18000	8477	3898	3222	23.90	830	1.0e+00	0.84379	0.00138	0.84654				
cvcrpunhct11_17_15	17000	8006	3681	3579	25.76	784	1.0e+00	0.84513	0.00147	0.84807				
cvcrpunhct11_16_15	16000	7536	3464	3937	27.86	738	1.0e+00	0.84809	0.00132	0.85072				
cvcrpunhct11_15_15	15000	7064	3248	4294	30.24	692	1.0e+00	0.85178	0.00146	0.85470				
cvcrpunhct11_14_15	14000	6594	3031	4652	32.96	645	1.0e+00	0.85473	0.00134	0.85741				
cvcrpunhct11_13_15	13000	6123	2815	5009	36.09	599	1.0e+00	0.85544	0.00134	0.85812				
cvcrpunhct11_12_15	12000	5652	2598	5366	39.75	553	1.0e+00	0.85658	0.00142	0.85941				
cvcrpunhct11_11_15	11000	5181	2382	5724	44.07	507	1.0e+00	0.85830	0.00152	0.86133				
cvcrpunhct11_10_15	10000	4710	2165	6081	49.26	461	1.0e+00	0.85943	0.00176	0.86296				
cvcrpunhct11_9_15	9000	4239	1949	6438	55.60	415	1.0e+00	0.85882	0.00139	0.86161				
cvcrpunhct11_8_15	8000	3768	1732	6796	63.53	369	1.0e+00	0.85472	0.00116	0.85705				
cvcrpunhct11_7_15	7000	3297	1516	7153	73.72	323	1.0e+00	0.84975	0.00143	0.85261				
cvcrpunhct11_6_15	6000	2826	1299	7510	87.31	277	1.0e+00	0.84484	0.00132	0.84748				
cvcrpunhct11_5_15	5000	2355	1083	7868	106.33	231	1.0e+00	0.83459	0.00167	0.83793				
cvcrpunhct11_4_15	4000	1884	866	8225	134.85	184	1.0e+00	0.82093	0.00142	0.82378				

Table 6.9.6-14. Results for UNX crystal content in CV calculation model

case name	unh (g)	^{235}U (g)	unh H_2O (g)	CV H_2O (g)	h/x	gU/l	mocfr	k_{eff}	σ	$k_{eff}+2\sigma$				
cvcrpunhct11_3_15	3000	1413	650	8582	182.42	138	1.0e+00	0.78968	0.00130	0.79228				
cvcrpunhct11_2_15	2000	942	433	8940	277.51	92	1.0e+00	0.73500	0.00145	0.73791				
cvcrpunhct11_1_15	1000	471	217	9297	562.74	46	1.0e+00	0.61053	0.00118	0.61289				
UNH crystal content, 500 g polyethylene, dry containment vessel, reflected														
cvcrpunhct11_24_1	24000	11303	5197	0	13.48	1106.5	1.0e-20	0.76603	0.00145	0.76893				
cvcrpunhct11_23_1	23000	10832	4980	0	13.55	1060.4	1.0e-20	0.75118	0.00132	0.75382				
cvcrpunhct11_22_1	22000	10361	4764	0	13.62	1014.3	1.0e-20	0.73265	0.00133	0.73531				
cvcrpunhct11_21_1	21000	9890	4547	0	13.70	968.2	1.0e-20	0.71276	0.00125	0.71527				
cvcrpunhct11_20_1	20000	9419	4331	0	13.78	922.1	1.0e-20	0.69662	0.00146	0.69955				
cvcrpunhct11_19_1	19000	8948	4114	0	13.87	876.0	1.0e-20	0.67992	0.00144	0.68279				
cvcrpunhct11_18_1	18000	8477	3898	0	13.98	829.9	1.0e-20	0.66144	0.00115	0.66374				
cvcrpunhct11_17_1	17000	8006	3681	0	14.09	783.8	1.0e-20	0.64482	0.00128	0.64738				
cvcrpunhct11_16_1	16000	7536	3464	0	14.23	737.7	1.0e-20	0.62404	0.00110	0.62624				
cvcrpunhct11_15_1	15000	7064	3248	0	14.37	691.5	1.0e-20	0.60835	0.00125	0.61085				
cvcrpunhct11_14_1	14000	6594	3031	0	14.54	645.5	1.0e-20	0.58778	0.00113	0.59003				
cvcrpunhct11_13_1	13000	6123	2815	0	14.74	599.4	1.0e-20	0.56892	0.00115	0.57123				
cvcrpunhct11_12_1	12000	5652	2598	0	14.97	553.2	1.0e-20	0.55059	0.00129	0.55317				
cvcrpunhct11_11_1	11000	5181	2382	0	15.24	507.1	1.0e-20	0.53268	0.00108	0.53485				
cvcrpunhct11_10_1	10000	4710	2165	0	15.56	461.0	1.0e-20	0.51381	0.00135	0.51650				
cvcrpunhct11_9_1	9000	4239	1949	0	15.96	414.9	1.0e-20	0.49374	0.00111	0.49596				
cvcrpunhct11_8_1	8000	3768	1732	0	16.45	368.8	1.0e-20	0.47312	0.00106	0.47524				
cvcrpunhct11_7_1	7000	3297	1516	0	17.09	322.7	1.0e-20	0.45221	0.00108	0.45437				
cvcrpunhct11_6_1	6000	2826	1299	0	17.93	276.6	1.0e-20	0.43063	0.00114	0.43290				
cvcrpunhct11_5_1	5000	2355	1083	0	19.12	230.5	1.0e-20	0.40936	0.00103	0.41141				

Table 6.9.6-14. Results for UNX crystal content in CV calculation model

case name	unh (g)	^{235}U (g)	unh H_2O (g)	CV H_2O (g)	h/x	gU/l	mocfr	k_{eff}	σ	$k_{eff}+2\sigma$				
cvcrpunhct11_4_1	4000	1884	866	0	20.90	184.4	1.0e-20	0.38394	0.00105	0.38603				
cvcrpunhct11_3_1	3000	1413	650	0	23.87	138.3	1.0e-20	0.35655	0.00096	0.35846				
cvcrpunhct11_2_1	2000	942	433	0	29.80	92.2	1.0e-20	0.31381	0.00093	0.31566				
cvcrpunhct11_1_1	1000	471	217	0	47.60	46.1	1.0e-20	0.24974	0.00079	0.25132				
500 g polyethylene and undissolved UNH crystals, flooded containment vessel, reflected														
cvcrbpunhct11_24_15	24000	11303	5197	1078	15.97	NA	1.0e+00	0.81439	0.00135	0.81710				
cvcrbpunhct11_23_15	23000	10832	4980	1435	17.01	NA	1.0e+00	0.81243	0.00128	0.81498				
cvcrbpunhct11_22_15	22000	10361	4764	1793	18.13	NA	1.0e+00	0.81092	0.00139	0.81369				
cvcrbpunhct11_21_15	21000	9890	4547	2150	19.37	NA	1.0e+00	0.80901	0.00135	0.81172				
cvcrbpunhct11_20_15	20000	9419	4331	2507	20.73	NA	1.0e+00	0.80864	0.00168	0.81200				
cvcrbpunhct11_19_15	19000	8948	4114	2865	22.23	NA	1.0e+00	0.80344	0.00145	0.80635				
cvcrbpunhct11_18_15	18000	8477	3898	3222	23.90	NA	1.0e+00	0.80646	0.00132	0.80911				
cvcrbpunhct11_17_15	17000	8006	3681	3579	25.76	NA	1.0e+00	0.80294	0.00134	0.80563				
cvcrbpunhct11_16_15	16000	7536	3465	3937	27.86	NA	1.0e+00	0.79909	0.00115	0.80139				
cvcrbpunhct11_15_15	15000	7064	3248	4294	30.24	NA	1.0e+00	0.79593	0.00133	0.79858				
cvcrbpunhct11_14_15	14000	6594	3031	4652	32.96	NA	1.0e+00	0.79487	0.00109	0.79705				
cvcrbpunhct11_13_15	13000	6123	2815	5009	36.09	NA	1.0e+00	0.78728	0.00118	0.78964				
cvcrbpunhct11_12_15	12000	5652	2598	5366	39.75	NA	1.0e+00	0.78337	0.00127	0.78592				
cvcrbpunhct11_11_15	11000	5181	2382	5724	44.07	NA	1.0e+00	0.77773	0.00122	0.78017				
cvcrbpunhct11_10_15	10000	4710	2165	6081	49.26	NA	1.0e+00	0.77009	0.00154	0.77317				
cvcrbpunhct11_9_15	9000	4239	1949	6438	55.60	NA	1.0e+00	0.76494	0.00133	0.76760				
cvcrbpunhct11_8_15	8000	3768	1732	6796	63.53	NA	1.0e+00	0.75339	0.00148	0.75635				
cvcrbpunhct11_7_15	7000	3297	1516	7153	73.72	NA	1.0e+00	0.74139	0.00149	0.74437				
cvcrbpunhct11_6_15	6000	2826	1299	7510	87.31	NA	1.0e+00	0.72740	0.00134	0.73009				

Table 6.9.6-14. Results for UNX crystal content in CV calculation model

case name	unh (g)	^{235}U (g)	unh H_2O (g)	CV H_2O (g)	h/x	gU/l	mocfr	k_{eff}	σ	$k_{eff}+2\sigma$				
cvcrbpunhct11_5_15	5000	2355	1083	7868	6.33	NA	1.0e+00	0.70988	0.00128	0.71244				
cvcrbpunhct11_4_15	4000	1884	866	8225	34.85	NA	1.0e+00	0.68707	0.00137	0.68981				
cvcrbpunhct11_3_15	3000	1413	650	8582	82.42	NA	1.0e+00	0.65613	0.00136	0.65885				
cvcrbpunhct11_2_15	2000	942	433	8940	77.51	NA	1.0e+00	0.61167	0.00117	0.61402				
cvcrbpunhct11_1_15	1000	471	217	9297	62.74	NA	1.0e+00	0.55043	0.00140	0.55324				
500 g polyethylene and undissolved UNH crystals, dry containment vessel, reflected														
cvcrbpunhct11_24_1	24000	11303	5197	0	13.48	NA	1.0e-20	0.81264	0.00142	0.81548				
cvcrbpunhct11_23_1	23000	10832	4980	0	13.55	NA	1.0e-20	0.81127	0.00129	0.81384				
cvcrbpunhct11_22_1	22000	10361	4764	0	13.62	NA	1.0e-20	0.80828	0.00121	0.81069				
cvcrbpunhct11_21_1	21000	9890	4547	0	13.70	NA	1.0e-20	0.80873	0.00122	0.81117				
cvcrbpunhct11_20_1	20000	9419	4331	0	13.78	NA	1.0e-20	0.80508	0.00132	0.80773				
cvcrbpunhct11_19_1	19000	8948	4114	0	13.87	NA	1.0e-20	0.80364	0.00150	0.80664				
cvcrbpunhct11_18_1	18000	8477	3898	0	13.98	NA	1.0e-20	0.80002	0.00170	0.80343				
cvcrbpunhct11_17_1	17000	8006	3681	0	14.09	NA	1.0e-20	0.79969	0.00165	0.80298				
cvcrbpunhct11_16_1	16000	7536	3465	0	14.23	NA	1.0e-20	0.79458	0.00144	0.79746				
cvcrbpunhct11_15_1	15000	7064	3248	0	14.37	NA	1.0e-20	0.79130	0.00141	0.79411				
cvcrbpunhct11_14_1	14000	6594	3031	0	14.54	NA	1.0e-20	0.78794	0.00127	0.79048				
cvcrbpunhct11_13_1	13000	6123	2815	0	14.74	NA	1.0e-20	0.78506	0.00137	0.78781				
cvcrbpunhct11_12_1	12000	5652	2598	0	14.97	NA	1.0e-20	0.78061	0.00121	0.78303				
cvcrbpunhct11_11_1	11000	5181	2382	0	15.24	NA	1.0e-20	0.77102	0.00125	0.77352				
cvcrbpunhct11_10_1	10000	4710	2165	0	15.56	NA	1.0e-20	0.76415	0.00129	0.76673				
cvcrbpunhct11_9_1	9000	4239	1949	0	15.96	NA	1.0e-20	0.75589	0.00141	0.75872				
cvcrbpunhct11_8_1	8000	3768	1732	0	16.45	NA	1.0e-20	0.74147	0.00151	0.74449				
cvcrbpunhct11_7_1	7000	3297	1516	0	17.09	NA	1.0e-20	0.72828	0.00125	0.73077				

Table 6.9.6-14. Results for UNX crystal content in CV calculation model

case name	unh (g)	^{235}U (g)	unh H_2O (g)	CV H_2O (g)	h/x	gU/l	mocfr	k_{eff}	σ	$k_{eff}+2\sigma$				
cvcrbpunhct11_6_1	6000	2826	1299	0	17.93	NA	1.0e-20	0.71077	0.00122	0.71321				
cvcrbpunhct11_5_1	5000	2355	1083	0	19.12	NA	1.0e-20	0.68823	0.00137	0.69096				
cvcrbpunhct11_4_1	4000	1884	866	0	20.90	NA	1.0e-20	0.66016	0.00146	0.66309				
cvcrbpunhct11_3_1	3000	1413	650	0	23.87	NA	1.0e-20	0.61922	0.00144	0.62211				
cvcrbpunhct11_2_1	2000	942	433	0	29.80	NA	1.0e-20	0.56205	0.00129	0.56462				
cvcrbpunhct11_1_1	1000	471	217	0	47.60	NA	1.0e-20	0.47544	0.00110	0.47765				

Table 6.9.6-15. Results for UNX crystal content in packaging calculation model

case name	unh (g)	^{235}U (g)	unh H_2O (g)	CV H_2O (g)	h/x	gU/l	moifr	k_{eff}	σ	$k_{eff}+2\sigma$	case name	k_{eff}	σ	$k_{eff}+2\sigma$
UNH crystal content, 0 g polyethylene in flooded containment vessel, single package reflected														
NCT											**HAC**			
ncsrunhct11_24_1_1	24000	11303	5197	1620	15.74	1106	1.0e-20	0.60250	0.00130	0.60510	hcsrunhct12_24_1_1	0.60528	0.00129	0.60786
ncsrunhct11_24_1_2	24000	11303	5197	1620	15.74	1106	1.0e-05	0.59895	0.00119	0.60134	hcsrunhct12_24_1_2	0.60289	0.00142	0.60574
ncsrunhct11_24_1_3	24000	11303	5197	1620	15.74	1106	1.0e-04	0.59947	0.00124	0.60194	hcsrunhct12_24_1_3	0.60552	0.00130	0.60812
ncsrunhct11_24_1_4	24000	11303	5197	1620	15.74	1106	1.0e-03	0.60331	0.00132	0.60595	hcsrunhct12_24_1_4	0.60265	0.00112	0.60489
ncsrunhct11_24_1_5	24000	11303	5197	1620	15.74	1106	1.0e-02	0.60398	0.00118	0.60635	hcsrunhct12_24_1_5	0.60426	0.00152	0.60731
ncsrunhct11_24_1_6	24000	11303	5197	1620	15.74	1106	1.0e-01	0.61004	0.00142	0.61287	hcsrunhct12_24_1_6	0.61378	0.00127	0.61632
ncsrunhct11_24_1_8	24000	11303	5197	1620	15.74	1106	3.0e-01	0.63238	0.00143	0.63524	hcsrunhct12_24_1_8	0.63556	0.00128	0.63813
ncsrunhct11_24_1_15	24000	11303	5197	1620	15.74	1106	1.0e+00	0.69882	0.00142	0.70166	hcsrunhct12_24_1_15	0.70190	0.00129	0.70448
ncsrunhct11_24_1_15	24000	11303	5197	1620	15.74	1106	1.0e+00	0.69882	0.00142	0.70166	hcsrunhct12_24_1_15	0.70190	0.00129	0.70448
ncsrunhct11_23_1_15	23000	10832	4980	1978	16.77	1060	1.0e+00	0.70360	0.00134	0.70628	hcsrunhct12_23_1_15	0.70555	0.00129	0.70813

Table 6.9.6-15. Results for UNX crystal content in packaging calculation model

case name	unh (g)	^{235}U (g)	unh H_2O (g)	CV H_2O (g)	h/x	gU/l	moifr	k_{eff}	σ	$k_{eff}+2\sigma$	case name	k_{eff}	σ	$k_{eff}+2\sigma$
ncsrunhct11_22_1_15	22000	10361	4764	2335	17.88	1014	1.0e+00	0.70899	0.00132	0.71163	hcsrunhct12_22_1_15	0.70899	0.00136	0.71171
ncsrunhct11_21_1_15	21000	9890	4547	2693	19.11	968	1.0e+00	0.71172	0.00133	0.71438	hcsrunhct12_21_1_15	0.71348	0.00158	0.71664
ncsrunhct11_20_1_15	20000	9419	4331	3050	20.45	922	1.0e+00	0.71256	0.00123	0.71501	hcsrunhct12_20_1_15	0.71623	0.00117	0.71858
ncsrunhct11_19_1_15	19000	8948	4114	3407	21.94	876	1.0e+00	0.71780	0.00132	0.72045	hcsrunhct12_19_1_15	0.71798	0.00132	0.72063
ncsrunhct11_18_1_15	18000	8477	3898	3765	23.59	830	1.0e+00	0.72130	0.00139	0.72407	hcsrunhct12_18_1_15	0.72545	0.00149	0.72843
ncsrunhct11_17_1_15	17000	8006	3681	4122	25.44	784	1.0e+00	0.72340	0.00161	0.72663	hcsrunhct12_17_1_15	0.72589	0.00134	0.72856
ncsrunhct11_16_1_15	16000	7536	3464	4479	27.51	738	1.0e+00	0.72816	0.00141	0.73098	hcsrunhct12_16_1_15	0.73042	0.00147	0.73336
ncsrunhct11_15_1_15	15000	7064	3248	4837	29.87	692	1.0e+00	0.73150	0.00149	0.73449	hcsrunhct12_15_1_15	0.73525	0.00151	0.73827
ncsrunhct11_14_1_15	14000	6594	3031	5194	32.56	645	1.0e+00	0.73255	0.00135	0.73524	hcsrunhct12_14_1_15	0.73405	0.00150	0.73704
ncsrunhct11_13_1_15	13000	6123	2815	5551	35.67	599	1.0e+00	0.73488	0.00128	0.73745	hcsrunhct12_13_1_15	0.73722	0.00159	0.74040
ncsrunhct11_12_1_15	12000	5652	2598	5909	39.29	553	1.0e+00	0.73982	0.00146	0.74274	hcsrunhct12_12_1_15	0.74114	0.00126	0.74366
ncsrunhct11_11_1_15	11000	5181	2382	6266	43.57	507	1.0e+00	0.74059	0.00156	0.74370	hcsrunhct12_11_1_15	0.74104	0.00187	0.74477
ncsrunhct11_10_1_15	10000	4710	2165	6623	48.71	461	1.0e+00	0.74238	0.00148	0.74533	hcsrunhct12_10_1_15	0.74247	0.00134	0.74514
ncsrunhct11_9_1_15	9000	4239	1949	6981	54.99	415	1.0e+00	0.74214	0.00135	0.74484	hcsrunhct12_9_1_15	0.74537	0.00150	0.74836
ncsrunhct11_8_1_15	8000	3768	1732	7338	62.83	369	1.0e+00	0.74436	0.00146	0.74728	hcsrunhct12_8_1_15	0.74169	0.00176	0.74521
ncsrunhct11_7_1_15	7000	3297	1516	7695	72.92	323	1.0e+00	0.73972	0.00146	0.74265	hcsrunhct12_7_1_15	0.74201	0.00129	0.74459
ncsrunhct11_6_1_15	6000	2826	1299	8053	86.38	277	1.0e+00	0.73458	0.00147	0.73752	hcsrunhct12_6_1_15	0.73491	0.00155	0.73802
ncsrunhct11_5_1_15	5000	2355	1083	8410	105.22	231	1.0e+00	0.72880	0.00143	0.73166	hcsrunhct12_5_1_15	0.72804	0.00151	0.73107
ncsrunhct11_4_1_15	4000	1884	866	8768	133.47	184	1.0e+00	0.71269	0.00158	0.71585	hcsrunhct12_4_1_15	0.71463	0.00147	0.71758
ncsrunhct11_3_1_15	3000	1413	650	9125	180.57	138	1.0e+00	0.68768	0.00137	0.69042	hcsrunhct12_3_1_15	0.69065	0.00121	0.69306
ncsrunhct11_2_1_15	2000	942	433	9482	274.74	92	1.0e+00	0.64383	0.00118	0.64619	hcsrunhct12_2_1_15	0.64813	0.00131	0.65076
UNH crystal content, 500 g polyethylene in flooded containment vessel, single package reflected														
ncsrpunhct11_24_1	24000	11303	5197	1078	15.97	1106	1e-20	0.60653	0.00140	0.60932	hcsrpunhct12_24_1	0.60988	0.00142	0.61273
ncsrpunhct11_24_15	24000	11303	5197	1078	15.97	1106	1e+00	0.70571	0.00135	0.70841	hcsrpunhct12_24_15	0.70886	0.00133	0.71152

Table 6.9.6-15. Results for UNX crystal content in packaging calculation model

case name	unh (g)	^{235}U (g)	unh H_2O (g)	CV H_2O (g)	h/x	gU/l	moifr	k_{eff}	σ	$k_{eff}+2\sigma$	case name	k_{eff}	σ	$k_{eff}+2\sigma$
ncsrpunhct11_24_15	24000	11303	5197	1078	15.97	1106	1e+00	0.70571	0.00135	0.70841	hcsrpunhct12_24_15	0.70886	0.00133	0.71152
ncsrpunhct11_23_15	23000	10832	4980	1435	17.01	1060	1e+00	0.71244	0.00130	0.71504	hcsrpunhct12_23_15	0.71209	0.00121	0.71452
ncsrpunhct11_22_15	22000	10361	4764	1793	18.13	1014	1e+00	0.71524	0.00158	0.71841	hcsrpunhct12_22_15	0.71753	0.00126	0.72006
ncsrpunhct11_21_15	21000	9890	4547	2150	19.37	968	1e+00	0.71747	0.00154	0.72055	hcsrpunhct12_21_15	0.71997	0.00137	0.72270
ncsrpunhct11_20_15	20000	9419	4331	2507	20.73	922	1e+00	0.72176	0.00151	0.72479	hcsrpunhct12_20_15	0.72403	0.00130	0.72663
ncsrpunhct11_19_15	19000	8948	4114	2865	22.23	876	1e+00	0.72616	0.00138	0.72891	hcsrpunhct12_19_15	0.72647	0.00141	0.72929
ncsrpunhct11_18_15	18000	8477	3898	3222	23.90	830	1e+00	0.72901	0.00163	0.73227	hcsrpunhct12_18_15	0.73343	0.00131	0.73606
ncsrpunhct11_17_15	17000	8006	3681	3579	25.76	784	1e+00	0.73255	0.00127	0.73508	hcsrpunhct12_17_15	0.73387	0.00128	0.73643
ncsrpunhct11_16_15	16000	7536	3465	3937	27.86	738	1e+00	0.73515	0.00152	0.73818	hcsrpunhct12_16_15	0.73768	0.00152	0.74073
ncsrpunhct11_15_15	15000	7064	3248	4294	30.24	692	1e+00	0.74097	0.00126	0.74349	hcsrpunhct12_15_15	0.74006	0.00132	0.74270
ncsrpunhct11_14_15	14000	6594	3031	4652	32.96	645	1e+00	0.74169	0.00135	0.74438	hcsrpunhct12_14_15	0.74240	0.00141	0.74522
ncsrpunhct11_13_15	13000	6123	2815	5009	36.09	599	1e+00	0.74466	0.00139	0.74744	hcsrpunhct12_13_15	0.74534	0.00141	0.74815
ncsrpunhct11_12_15	12000	5652	2598	5366	39.75	553	1e+00	0.74381	0.00142	0.74666	hcsrpunhct12_12_15	0.74529	0.00132	0.74794
ncsrpunhct11_11_15	11000	5181	2382	5724	44.07	507	1e+00	0.74858	0.00146	0.75151	hcsrpunhct12_11_15	0.74980	0.00139	0.75259
ncsrpunhct11_10_15	10000	4710	2165	6081	49.26	461	1e+00	0.74595	0.00140	0.74875	hcsrpunhct12_10_15	0.74967	0.00141	0.75249
ncsrpunhct11_9_15	9000	4239	1949	6438	55.60	415	1e+00	0.74868	0.00167	0.75202	hcsrpunhct12_9_15	0.75260	0.00164	0.75587
ncsrpunhct11_8_15	8000	3768	1732	6796	63.53	369	1e+00	0.74978	0.00139	0.75255	hcsrpunhct12_8_15	0.74914	0.00120	0.75155
ncsrpunhct11_7_15	7000	3297	1516	7153	73.72	323	1e+00	0.74628	0.00147	0.74922	hcsrpunhct12_7_15	0.74708	0.00155	0.75018
ncsrpunhct11_6_15	6000	2826	1299	7510	87.31	277	1e+00	0.74259	0.00122	0.74503	hcsrpunhct12_6_15	0.74481	0.00150	0.74781
ncsrpunhct11_5_15	5000	2355	1083	7868	106.33	231	1e+00	0.73226	0.00133	0.73492	hcsrpunhct12_5_15	0.73303	0.00153	0.73609
ncsrpunhct11_4_15	4000	1884	866	8225	134.85	184	1e+00	0.72045	0.00145	0.72334	hcsrpunhct12_4_15	0.71942	0.00168	0.72279
ncsrpunhct11_3_15	3000	1413	650	8582	182.42	138	1e+00	0.69669	0.00167	0.70003	hcsrpunhct12_3_15	0.69613	0.00139	0.69891

Table 6.9.6-15. Results for UNX crystal content in packaging calculation model

case name	unh (g)	^{235}U (g)	unh H_2O (g)	CV H_2O (g)	h/x	gU/l	moifr	k_{eff}	σ	$k_{eff}+2\sigma$	case name	k_{eff}	σ	$k_{eff}+2\sigma$
ncsrpunhct11_2_15	2000	942	433	8940	277.51	92	1e+00	0.65100	0.00112	0.65324	hcsrpunhct12_2_15	0.65137	0.00149	0.65436
ncsrpunhct11_1_15	1000	471	217	9297	562.74	46	1e+00	0.54270	0.00116	0.54501	hcsrpunhct12_1_15	0.54296	0.00099	0.54494
UNH crystal content, 0 g polyethylene in flooded containment vessel, array packaging calculation model for CSI=0.0														
NCT											**HAC**			
nciaunhct11_8_24_1_1	24000	11303	5197	1620	15.74	1106	1.0e-20	0.91485	0.00136	0.91756	hciaunhct12_8_24_1_1	0.91665	0.00134	0.91933
nciaunhct11_8_24_1_2	24000	11303	5197	1620	15.74	1106	1.0e-05	0.91420	0.00120	0.91659	hciaunhct12_8_24_1_2	0.91708	0.00131	0.91969
nciaunhct11_8_24_1_3	24000	11303	5197	1620	15.74	1106	1.0e-04	0.91426	0.00123	0.91672	hciaunhct12_8_24_1_3	0.91632	0.00112	0.91856
nciaunhct11_8_24_1_4	24000	11303	5197	1620	15.74	1106	1.0e-03	0.91095	0.00119	0.91333	hciaunhct12_8_24_1_4	0.91159	0.00120	0.91399
nciaunhct11_8_24_1_5	24000	11303	5197	1620	15.74	1106	1.0e-02	0.88904	0.00117	0.89138	hciaunhct12_8_24_1_5	0.89357	0.00127	0.89610
nciaunhct11_8_24_1_6	24000	11303	5197	1620	15.74	1106	1.0e-01	0.77132	0.00109	0.77350	hciaunhct12_8_24_1_6	0.78417	0.00129	0.78676
nciaunhct11_8_24_1_8	24000	11303	5197	1620	15.74	1106	3.0e-01	0.71012	0.00130	0.71272	hciaunhct12_8_24_1_8	0.71917	0.00135	0.72188
nciaunhct11_8_24_1_15	24000	11303	5197	1620	15.74	1106	1.0e+00	0.71873	0.00134	0.72140	hciaunhct12_8_24_1_15	0.72598	0.00147	0.72892
nciaunhct11_8_24_1_3	24000	11303	5197	1620	15.74	1106	1.0e-04	0.91426	0.00123	0.91672	hciaunhct12_8_24_1_3	0.91632	0.00112	0.91856
nciaunhct11_8_12_1_3	12000	5652	2598	5909	39.29	553	1.0e-04	0.93016	0.00130	0.93277	hciaunhct12_8_12_1_3	0.92942	0.00157	0.93256
nciaunhct11_8_11_1_3	11000	5181	2382	6266	43.57	507	1.0e-04	0.92825	0.00132	0.93090	hciaunhct12_8_11_1_3	0.92834	0.00152	0.93138
nciaunhct11_8_10_1_3	10000	4710	2165	6623	48.71	461	1.0e-04	0.92490	0.00152	0.92794	hciaunhct12_8_10_1_3	0.92555	0.00137	0.92828
nciaunhct11_8_9_1_3	9000	4239	1949	6981	54.99	415	1.0e-04	0.92044	0.00124	0.92293	hciaunhct12_8_9_1_3	0.92360	0.00136	0.92631
nciaunhct11_8_8_1_3	8000	3768	1732	7338	62.83	369	1.0e-04	0.91662	0.00121	0.91905	hciaunhct12_8_8_1_3	0.91875	0.00144	0.92163
nciaunhct11_8_7_1_3	7000	3297	1516	7695	72.92	323	1.0e-04	0.91132	0.00140	0.91411	hciaunhct12_8_7_1_3	0.90978	0.00135	0.91247
nciaunhct11_8_6_1_3	6000	2826	1299	8053	86.38	277	1.0e-04	0.90036	0.00128	0.90293	hciaunhct12_8_6_1_3	0.89938	0.00150	0.90238
nciaunhct11_8_5_1_3	5000	2355	1083	8410	105.22	231	1.0e-04	0.88578	0.00141	0.88860	hciaunhct12_8_5_1_3	0.88489	0.00149	0.88788
nciaunhct11_8_4_1_3	4000	1884	866	8768	133.47	184	1.0e-04	0.86530	0.00119	0.86769	hciaunhct12_8_4_1_3	0.86326	0.00139	0.86604
nciaunhct11_8_3_1_3	3000	1413	650	9125	180.57	138	1.0e-04	0.82655	0.00120	0.82895	hciaunhct12_8_3_1_3	0.83005	0.00118	0.83242

Table 6.9.6-15. Results for UNX crystal content in packaging calculation model

case name	unh (g)	^{235}U (g)	unh H_2O (g)	CV H_2O (g)	h/x	gU/l	moifr	k_{eff}	σ	$k_{eff}+2\sigma$	case name	k_{eff}	σ	$k_{eff}+2\sigma$
nciaunhct11_8_2_1_3	2000	942	433	9482	274.74	92	1.0e-04	0.76783	0.00123	0.77029	hciaunhct12_8_2_1_3	0.76545	0.00129	0.76804
nciaunhct11_8_1_1_3	1000	471	217	9840	557.20	46	1.0e-04	0.62610	0.00112	0.62834	hciaunhct12_8_1_1_3	0.62341	0.00104	0.62549
UNH crystal content, 500 g polyethylene in flooded containment vessel, array packaging calculation model for CSI=0.0														
nciapunhct11_24_1	24000	11303	5197	1078	15.97	1106	1e-20	0.92205	0.00118	0.92442	hciapunhct12_24_1	0.92136	0.00123	0.92383
nciapunhct11_24_15	24000	11303	5197	1078	15.97	1106	1e+00	0.72649	0.00128	0.72905	hciapunhct12_24_15	0.73087	0.00128	0.73343
nciapunhct11_24_3	24000	11303	5197	1078	15.97	1106	1e-04	0.92258	0.00141	0.92539	hciapunhct12_24_3	0.92172	0.00124	0.92419
nciapunhct11_16_3	16000	7536	3465	3937	27.86	738	1e-04	0.93498	0.00131	0.93759	hciapunhct12_16_3	0.93544	0.00130	0.93804
nciapunhct11_15_3	15000	7064	3248	4294	30.24	692	1e-04	0.93400	0.00139	0.93678	hciapunhct12_15_3	0.93500	0.00136	0.93771
nciapunhct11_14_3	14000	6594	3031	4652	32.96	645	1e-04	0.93374	0.00153	0.93680	hciapunhct12_14_3	0.93539	0.00135	0.93810
nciapunhct11_8_3	8000	3768	1732	6796	63.53	369	1e-04	0.92190	0.00144	0.92478	hciapunhct12_8_3	0.92270	0.00159	0.92589
nciapunhct11_7_3	7000	3297	1516	7153	73.72	323	1e-04	0.91677	0.00157	0.91991	hciapunhct12_7_3	0.91538	0.00132	0.91803
nciapunhct11_1_3	1000	471	217	9297	562.74	46	1e-04	0.62819	0.00115	0.63049	hciapunhct12_1_3	0.62885	0.00109	0.63103
UNH crystal content, 0 g polyethylene in flooded containment vessel, array packaging calculation model for CSI=0.4														
NCT											**HAC**			
ncf1unhct11_8_24_1_3	24000	11303	5197	1620	15.74	1106	1.0e-04	0.86774	0.00127	0.87027	hcf2unhct12_8_24_1_3	0.82915	0.00145	0.83205
ncf1unhct11_8_12_1_3	12000	5652	2598	5909	39.29	553	1.0e-04	0.88287	0.00133	0.88554	hcf2unhct12_8_12_1_3	0.85267	0.00165	0.85597
ncf1unhct11_8_11_1_3	11000	5181	2382	6266	43.57	507	1.0e-04	0.88535	0.00133	0.88802	hcf2unhct12_8_11_1_3	0.85565	0.00134	0.85833
ncf1unhct11_8_10_1_3	10000	4710	2165	6623	48.71	461	1.0e-04	0.88182	0.00140	0.88461	hcf2unhct12_8_10_1_3	0.85153	0.00132	0.85416
ncf1unhct11_8_1_1_3	1000	471	217	9840	557.20	46	1.0e-04	0.60011	0.00143	0.60297	hcf2unhct12_8_1_1_3	0.58199	0.00107	0.58414
UNH crystal content, 500 g polyethylene in flooded containment vessel, array packaging calculation model for CSI=0.4														
ncf1punhct11_24_3	24000	11303	5197	1078	15.97	1106	1e-04	0.87035	0.00135	0.87304	hcf2punhct12_24_3	0.83958	0.00135	0.84227
ncf1punhct11_15_3	15000	7064	3248	4294	30.24	692	1e-04	0.89208	0.00154	0.89516	hcf2punhct12_15_3	0.86102	0.00149	0.86400

Table 6.9.6-15. Results for UNX crystal content in packaging calculation model

case name	unh (g)	^{235}U (g)	unh H_2O (g)	CV H_2O (g)	h/x	gU/l	moifr	k_{eff}	σ	$k_{eff}+2\sigma$	case name	k_{eff}	σ	$k_{eff}+2\sigma$
ncf1punhct11_14_3	14000	6594	3031	4652	32.96	645	1e-04	0.89354	0.00152	0.89658	hcf2punhct12_14_3	0.85954	0.00131	0.86216
ncf1punhct11_1_3	1000	471	217	9297	562.74	46	1e-04	0.60481	0.00118	0.60718	hcf2punhct12_1_3	0.58731	0.00119	0.58968

Table 6.9.6-16. Results for leakage of UNX crystal content out of containment vessel

case name	U (g)	^{235}U (g)	unh H_2O (g)	CV H_2O (g)	h/x	CV gU/l	moifr	k_{eff}	σ	$k_{eff}+2\sigma$				
UNH crystal content, 0 g polyethylene in flooded containment vessel, out leakage, single package reflected														
HAC														
icsrunhct12_24_1_1	24000	11303	5197	4875	30.14	687	1.0e-20	0.78331	0.00139	0.78609				
icsrunhct12_24_1_2	24000	11303	5197	4875	30.14	687	1.0e-05	0.78291	0.00159	0.78610				
icsrunhct12_24_1_3	24000	11303	5197	4875	30.14	687	1.0e-04	0.78197	0.00153	0.78503				
icsrunhct12_24_1_4	24000	11303	5197	4875	30.14	687	1.0e-03	0.78003	0.00145	0.78294				
icsrunhct12_24_1_5	24000	11303	5197	4875	30.14	687	1.0e-02	0.78443	0.00140	0.78723				
icsrunhct12_24_1_6	24000	11303	5197	4875	30.14	687	1.0e-01	0.78426	0.00151	0.78729				
icsrunhct12_24_1_8	24000	11303	5197	4875	30.14	687	3.0e-01	0.78841	0.00153	0.79146				
icsrunhct12_24_1_15	24000	11303	5197	4875	30.14	687	1.0e+00	0.79193	0.00164	0.79521				
icsrunhct12_24_1_15	24000	11303	5197	4875	30.14	687	1.0e+00	0.79193	0.00164	0.79521				
icsrunhct12_23_1_15	23000	10832	4980	5097	31.79	658	1.0e+00	0.79465	0.00130	0.79724				
icsrunhct12_22_1_15	22000	10361	4764	5318	33.59	629	1.0e+00	0.79665	0.00145	0.79956				
icsrunhct12_21_1_15	21000	9890	4547	5540	35.56	601	1.0e+00	0.79533	0.00156	0.79845				
icsrunhct12_20_1_15	20000	9419	4331	5762	37.73	572	1.0e+00	0.79937	0.00179	0.80295				
icsrunhct12_19_1_15	19000	8948	4114	5984	40.13	544	1.0e+00	0.80059	0.00135	0.80329				

Table 6.9.6-16. Results for leakage of UNX crystal content out of containment vessel

case name	U (g)	^{235}U (g)	unh H_2O (g)	CV H_2O (g)	h/x	CV gU/l	moifr	k_{eff}	σ	k_{eff}+2σ				
icsrunhct12_18_1_15	18000	8477	3898	6205	42.79	515	1.0e+00	0.79930	0.00144	0.80219				
icsrunhct12_17_1_15	17000	8006	3681	6427	45.77	486	1.0e+00	0.80320	0.00153	0.80626				
icsrunhct12_16_1_15	16000	7536	3464	6649	49.11	458	1.0e+00	0.80113	0.00142	0.80396				
icsrunhct12_15_1_15	15000	7064	3248	6871	52.91	429	1.0e+00	0.80445	0.00148	0.80740				
icsrunhct12_14_1_15	14000	6594	3031	7092	57.24	401	1.0e+00	0.79995	0.00124	0.80243				
icsrunhct12_13_1_15	13000	6123	2815	7314	62.25	372	1.0e+00	0.80425	0.00139	0.80703				
icsrunhct12_12_1_15	12000	5652	2598	7536	68.09	343	1.0e+00	0.79843	0.00129	0.80100				
icsrunhct12_11_1_15	11000	5181	2382	7758	74.98	315	1.0e+00	0.80002	0.00147	0.80297				
icsrunhct12_10_1_15	10000	4710	2165	7979	83.26	286	1.0e+00	0.79540	0.00162	0.79864				
icsrunhct12_9_1_15	9000	4239	1949	8201	93.38	257	1.0e+00	0.79147	0.00156	0.79459				
icsrunhct12_8_1_15	8000	3768	1732	8423	106.03	229	1.0e+00	0.78224	0.00165	0.78553				
icsrunhct12_7_1_15	7000	3297	1516	8645	122.29	200	1.0e+00	0.77559	0.00131	0.77821				
icsrunhct12_6_1_15	6000	2826	1299	8866	143.98	172	1.0e+00	0.76261	0.00136	0.76532				
icsrunhct12_5_1_15	5000	2355	1083	9088	174.33	143	1.0e+00	0.74504	0.00138	0.74781				
icsrunhct12_4_1_15	4000	1884	866	9310	219.86	114	1.0e+00	0.72070	0.00131	0.72333				
icsrunhct12_3_1_15	3000	1413	650	9532	295.76	86	1.0e+00	0.68185	0.00131	0.68447				
icsrunhct12_2_1_15	2000	942	433	9753	447.52	57	1.0e+00	0.61401	0.00117	0.61635				
icsrunhct12_1_1_15	1000	471	217	9975	902.71	29	1.0e+00	0.47625	0.00103	0.47831				
UNH crystal content, 500 g polyethylene in flooded containment vessel, out leakage, single package reflected														
icsrpunhct12_24_1	24000	11303	5197	4444	30.37	710	1e-20	0.79145	0.00146	0.79436				
icsrpunhct12_24_15	24000	11303	5197	4444	30.37	710	1e+00	0.80433	0.00145	0.80723				
icsrpunhct12_24_15	24000	11303	5197	4444	30.37	710	1e+00	0.80433	0.00145	0.80723				
icsrpunhct12_23_15	23000	10832	4980	4661	32.03	680	1e+00	0.80343	0.00127	0.80597				
icsrpunhct12_22_15	22000	10361	4764	4878	33.84	651	1e+00	0.80375	0.00125	0.80625				

Table 6.9.6-16. Results for leakage of UNX crystal content out of containment vessel

case name	U (g)	^{235}U (g)	unh H_2O (g)	CV H_2O (g)	h/x	CV gU/l	moifr	k_{eff}	σ	$k_{eff}+2\sigma$				
icsrpunhct12_21_15	21000	9890	4547	5095	35.83	621	1e+00	0.80639	0.00161	0.80961				
icsrpunhct12_20_15	20000	9419	4331	5312	38.01	592	1e+00	0.80696	0.00144	0.80984				
icsrpunhct12_19_15	19000	8948	4114	5529	40.42	562	1e+00	0.80928	0.00157	0.81242				
icsrpunhct12_18_15	18000	8477	3898	5746	43.10	533	1e+00	0.80687	0.00138	0.80963				
icsrpunhct12_17_15	17000	8006	3681	5963	46.09	503	1e+00	0.80989	0.00164	0.81317				
icsrpunhct12_16_15	16000	7536	3464	6180	49.46	473	1e+00	0.80777	0.00162	0.81101				
icsrpunhct12_15_15	15000	7064	3248	6398	53.28	444	1e+00	0.81131	0.00154	0.81439				
icsrpunhct12_14_15	14000	6594	3031	6615	57.64	414	1e+00	0.80815	0.00162	0.81139				
icsrpunhct12_13_15	13000	6123	2815	6832	62.67	385	1e+00	0.80680	0.00133	0.80947				
icsrpunhct12_12_15	12000	5652	2598	7049	68.55	355	1e+00	0.80665	0.00151	0.80967				
icsrpunhct12_11_15	11000	5181	2382	7266	75.49	325	1e+00	0.80422	0.00157	0.80736				
icsrpunhct12_10_15	10000	4710	2165	7483	83.82	296	1e+00	0.80093	0.00148	0.80388				
icsrpunhct12_9_15	9000	4239	1949	7700	94.00	266	1e+00	0.79650	0.00144	0.79937				
icsrpunhct12_8_15	8000	3768	1732	7918	106.72	237	1e+00	0.79302	0.00182	0.79667				
icsrpunhct12_7_15	7000	3297	1516	8135	123.08	207	1e+00	0.78234	0.00156	0.78546				
icsrpunhct12_6_15	6000	2826	1299	8352	144.90	178	1e+00	0.76957	0.00175	0.77308				
icsrpunhct12_5_15	5000	2355	1083	8569	175.44	148	1e+00	0.75295	0.00147	0.75588				
icsrpunhct12_4_15	4000	1884	866	8786	221.24	118	1e+00	0.72610	0.00127	0.72864				
icsrpunhct12_3_15	3000	1413	650	9003	297.61	89	1e+00	0.68788	0.00134	0.69055				
icsrpunhct12_2_15	2000	942	433	9220	450.29	59	1e+00	0.61943	0.00119	0.62182				
icsrpunhct12_1_15	1000	471	217	9437	908.25	30	1e+00	0.47924	0.00105	0.48134				

Table 6.9.6-17. Results for skull oxide (SO) content in CV calculation model

case name	SO (g)	UO_3 (g)	Sat. H_2O (g)	SO h/x	U (g)	^{235}U (g)	C (g)	mg C/ g ^{235}U	CV H_2O (g)	CV h/x	Unident. (g)	k_{eff}	σ	$k_{eff}+2\sigma$
flooded containment vessel, reflected														
513 g polyethylene, no can spacers														
cvcrsk3cc_1_15_17	11589	8063	4468	28.09	6828	4765	417	87518	4105	50.58	2596	0.82806	0.00135	0.83075
cvcrsk3cc_2_15_17	14934	11665	4015	17.79	9879	6858	504	73492	4105	33.41	2252	0.81716	0.00136	0.81989
cvcrsk3cc_3_15_17	13821	11876	4893	20.62	10058	7028	372	52930	3233	32.62	1060	0.82909	0.00144	0.83197
cvcrsk3cc_4_15_17	15246	14900	4599	15.52	12619	8842	60	6786	3235	25.07	-227	0.82622	0.00154	0.82930
cvcrsk3cc_5_15_17	21216	21036	3869	9.49	17815	12455	27	2168	3235	16.27	-360	0.81061	0.00116	0.81293
cvcrsk3cc_6_15_17	15111	12933	3765	28.02	10960	4122	921	223432	4105	54.01	744	0.75711	0.00110	0.75932
cvcrsk3cc_7_15_17	13155	11666	3989	32.68	9886	3712	609	164054	4106	61.55	367	0.76196	0.00136	0.76469
cvcrsk3cc_8_15_17	13650	11689	4068	33.01	9906	3737	261	69834	4106	61.69	1187	0.76713	0.00137	0.76988
cvcrsk3cc_9_15_17	21300	19865	3801	7.43	16816	15673	921	58764	3235	12.82	1	0.84737	0.00114	0.84965
cvcrsk3cc_10_15_17	21300	20786	3905	7.27	17596	16399	0	0	3235	12.41	1	0.85155	0.00148	0.85451
cvcrsk3cc_4_1_1	15246	14900	0	1.95	12619	8842	0.00	0	0	1.95	-227	0.49030	0.00095	0.49220
cvcrsk3cc_4_1_2	15246	14900	0	1.95	12619	8842	3.75	424	0	1.95	-227	0.49148	0.00090	0.49328
cvcrsk3cc_4_1_3	15246	14900	0	1.95	12619	8842	7.50	848	0	1.95	-227	0.49081	0.00095	0.49270
cvcrsk3cc_4_1_4	15246	14900	0	1.95	12619	8842	11.25	1272	0	1.95	-227	0.49337	0.00123	0.49584
cvcrsk3cc_4_1_5	15246	14900	0	1.95	12619	8842	15.00	1696	0	1.95	-227	0.49100	0.00105	0.49309
cvcrsk3cc_4_1_6	15246	14900	0	1.95	12619	8842	18.75	2120	0	1.95	-227	0.49125	0.00112	0.49348
cvcrsk3cc_4_1_7	15246	14900	0	1.95	12619	8842	22.50	2545	0	1.95	-227	0.49155	0.00104	0.49363
cvcrsk3cc_4_1_8	15246	14900	0	1.95	12619	8842	26.25	2969	0	1.95	-227	0.49300	0.00105	0.49510
cvcrsk3cc_4_1_9	15246	14900	0	1.95	12619	8842	30.00	3393	0	1.95	-227	0.49295	0.00117	0.49530
cvcrsk3cc_4_1_10	15246	14900	0	1.95	12619	8842	33.75	3817	0	1.95	-227	0.49206	0.00092	0.49391
cvcrsk3cc_4_1_11	15246	14900	0	1.95	12619	8842	37.50	4241	0	1.95	-227	0.49004	0.00115	0.49233

Table 6.9.6-17. Results for skull oxide (SO) content in CV calculation model

case name	SO (g)	UO_3 (g)	Sat. H_2O (g)	SO h/x	U (g)	^{235}U (g)	C (g)	mg C/ g ^{235}U	CV H_2O (g)	CV h/x	Unident. (g)	k_{eff}	σ	$k_{eff}+2\sigma$
cvcrsk3cc_4_1_12	15246	14900	0	1.95	12619	8842	41.25	4665	0	1.95	-227	0.49325	0.00116	0.49558
cvcrsk3cc_4_1_13	15246	14900	0	1.95	12619	8842	45.00	5089	0	1.95	-227	0.49242	0.00093	0.49429
cvcrsk3cc_4_1_14	15246	14900	0	1.95	12619	8842	48.75	5513	0	1.95	-227	0.49328	0.00119	0.49566
cvcrsk3cc_4_1_15	15246	14900	0	1.95	12619	8842	52.50	5937	0	1.95	-227	0.49139	0.00117	0.49373
cvcrsk3cc_4_1_16	15246	14900	0	1.95	12619	8842	56.25	6362	0	1.95	-227	0.49068	0.00105	0.49278
cvcrsk3cc_4_1_17	15246	14900	0	1.95	12619	8842	60.00	6786	0	1.95	-227	0.49303	0.00100	0.49502
cvcrsk3cc_4_6_1	15246	14900	460	3.3	12619	8842	0.00	0	323.51	4.26	-227	0.52088	0.00109	0.52306
cvcrsk3cc_4_6_2	15246	14900	460	3.3	12619	8842	3.75	424	323.51	4.26	-227	0.52247	0.00114	0.52474
cvcrsk3cc_4_6_3	15246	14900	460	3.3	12619	8842	7.50	848	323.51	4.26	-227	0.52250	0.00116	0.52482
cvcrsk3cc_4_6_4	15246	14900	460	3.3	12619	8842	11.25	1272	323.51	4.26	-227	0.52325	0.00103	0.52531
cvcrsk3cc_4_6_5	15246	14900	460	3.3	12619	8842	15.00	1696	323.51	4.26	-227	0.52252	0.00116	0.52485
cvcrsk3cc_4_6_6	15246	14900	460	3.3	12619	8842	18.75	2120	323.51	4.26	-227	0.52123	0.00113	0.52348
cvcrsk3cc_4_6_7	15246	14900	460	3.3	12619	8842	22.50	2545	323.51	4.26	-227	0.52156	0.00098	0.52353
cvcrsk3cc_4_6_8	15246	14900	460	3.3	12619	8842	26.25	2969	323.51	4.26	-227	0.52048	0.00106	0.52260
cvcrsk3cc_4_6_9	15246	14900	460	3.3	12619	8842	30.00	3393	323.51	4.26	-227	0.52115	0.00100	0.52315
cvcrsk3cc_4_6_10	15246	14900	460	3.3	12619	8842	33.75	3817	323.51	4.26	-227	0.52271	0.00114	0.52500
cvcrsk3cc_4_6_11	15246	14900	460	3.3	12619	8842	37.50	4241	323.51	4.26	-227	0.52221	0.00127	0.52474
cvcrsk3cc_4_6_12	15246	14900	460	3.3	12619	8842	41.25	4665	323.51	4.26	-227	0.52079	0.00104	0.52287
cvcrsk3cc_4_6_13	15246	14900	460	3.3	12619	8842	45.00	5089	323.51	4.26	-227	0.52323	0.00110	0.52543
cvcrsk3cc_4_6_14	15246	14900	460	3.3	12619	8842	48.75	5513	323.51	4.26	-227	0.52202	0.00129	0.52459
cvcrsk3cc_4_6_15	15246	14900	460	3.3	12619	8842	52.50	5937	323.51	4.26	-227	0.52288	0.00094	0.52476
cvcrsk3cc_4_6_16	15246	14900	460	3.3	12619	8842	56.25	6362	323.51	4.26	-227	0.52179	0.00106	0.52391
cvcrsk3cc_4_6_17	15246	14900	460	3.3	12619	8842	60.00	6786	323.51	4.26	-227	0.52265	0.00108	0.52481

Table 6.9.6-17. Results for skull oxide (SO) content in CV calculation model

case name	SO (g)	UO_3 (g)	Sat. H_2O (g)	SO h/x	U (g)	^{235}U (g)	C (g)	mg C/ g ^{235}U	CV H_2O (g)	CV h/x	Unident. (g)	k_{eff}	σ	$k_{eff}+2\sigma$
cvcrsk3cc_4_7_1	15246	14900	920	4.66	12619	8842	0.00	0	647.03	6.57	-227	0.55466	0.00117	0.55699
cvcrsk3cc_4_7_2	15246	14900	920	4.66	12619	8842	3.75	424	647.03	6.57	-227	0.55192	0.00105	0.55402
cvcrsk3cc_4_7_3	15246	14900	920	4.66	12619	8842	7.50	848	647.03	6.57	-227	0.55432	0.00118	0.55668
cvcrsk3cc_4_7_4	15246	14900	920	4.66	12619	8842	11.25	1272	647.03	6.57	-227	0.55387	0.00107	0.55600
cvcrsk3cc_4_7_5	15246	14900	920	4.66	12619	8842	15.00	1696	647.03	6.57	-227	0.55390	0.00102	0.55595
cvcrsk3cc_4_7_6	15246	14900	920	4.66	12619	8842	18.75	2120	647.03	6.57	-227	0.55272	0.00112	0.55496
cvcrsk3cc_4_7_7	15246	14900	920	4.66	12619	8842	22.50	2545	647.03	6.57	-227	0.55292	0.00118	0.55529
cvcrsk3cc_4_7_8	15246	14900	920	4.66	12619	8842	26.25	2969	647.03	6.57	-227	0.55262	0.00111	0.55484
cvcrsk3cc_4_7_9	15246	14900	920	4.66	12619	8842	30.00	3393	647.03	6.57	-227	0.55242	0.00108	0.55457
cvcrsk3cc_4_7_10	15246	14900	920	4.66	12619	8842	33.75	3817	647.03	6.57	-227	0.55457	0.00137	0.55732
cvcrsk3cc_4_7_11	15246	14900	920	4.66	12619	8842	37.50	4241	647.03	6.57	-227	0.55376	0.00117	0.55610
cvcrsk3cc_4_7_12	15246	14900	920	4.66	12619	8842	41.25	4665	647.03	6.57	-227	0.55283	0.00131	0.55545
cvcrsk3cc_4_7_13	15246	14900	920	4.66	12619	8842	45.00	5089	647.03	6.57	-227	0.55393	0.00118	0.55630
cvcrsk3cc_4_7_14	15246	14900	920	4.66	12619	8842	48.75	5513	647.03	6.57	-227	0.55181	0.00107	0.55395
cvcrsk3cc_4_7_15	15246	14900	920	4.66	12619	8842	52.50	5937	647.03	6.57	-227	0.55425	0.00107	0.55640
cvcrsk3cc_4_7_16	15246	14900	920	4.66	12619	8842	56.25	6362	647.03	6.57	-227	0.55377	0.00105	0.55587
cvcrsk3cc_4_7_17	15246	14900	920	4.66	12619	8842	60.00	6786	647.03	6.57	-227	0.55425	0.00101	0.55628
cvcrsk3cc_4_8_1	15246	14900	1380	6.02	12619	8842	0.00	0	970.54	8.88	-227	0.58801	0.00133	0.59068
cvcrsk3cc_4_8_2	15246	14900	1380	6.02	12619	8842	3.75	424	970.54	8.88	-227	0.58867	0.00114	0.59095
cvcrsk3cc_4_8_3	15246	14900	1380	6.02	12619	8842	7.50	848	970.54	8.88	-227	0.58712	0.00112	0.58936
cvcrsk3cc_4_8_4	15246	14900	1380	6.02	12619	8842	11.25	1272	970.54	8.88	-227	0.58657	0.00115	0.58887
cvcrsk3cc_4_8_5	15246	14900	1380	6.02	12619	8842	15.00	1696	970.54	8.88	-227	0.58720	0.00105	0.58930

Table 6.9.6-17. Results for skull oxide (SO) content in CV calculation model

case name	SO (g)	UO_3 (g)	Sat. H_2O (g)	SO h/x	U (g)	^{235}U (g)	C (g)	mg C/ g ^{235}U	CV H_2O (g)	CV h/x	Unident. (g)	k_{eff}	σ	$k_{eff}+2\sigma$
cvcrsk3cc_4_8_6	15246	14900	1380	6.02	12619	8842	18.75	2120	970.54	8.88	-227	0.58418	0.00122	0.58663
cvcrsk3cc_4_8_7	15246	14900	1380	6.02	12619	8842	22.50	2545	970.54	8.88	-227	0.58706	0.00118	0.58943
cvcrsk3cc_4_8_8	15246	14900	1380	6.02	12619	8842	26.25	2969	970.54	8.88	-227	0.58528	0.00110	0.58748
cvcrsk3cc_4_8_9	15246	14900	1380	6.02	12619	8842	30.00	3393	970.54	8.88	-227	0.58452	0.00119	0.58689
cvcrsk3cc_4_8_10	15246	14900	1380	6.02	12619	8842	33.75	3817	970.54	8.88	-227	0.58645	0.00113	0.58870
cvcrsk3cc_4_8_11	15246	14900	1380	6.02	12619	8842	37.50	4241	970.54	8.88	-227	0.58475	0.00109	0.58694
cvcrsk3cc_4_8_12	15246	14900	1380	6.02	12619	8842	41.25	4665	970.54	8.88	-227	0.58633	0.00110	0.58853
cvcrsk3cc_4_8_13	15246	14900	1380	6.02	12619	8842	45.00	5089	970.54	8.88	-227	0.58553	0.00107	0.58766
cvcrsk3cc_4_8_14	15246	14900	1380	6.02	12619	8842	48.75	5513	970.54	8.88	-227	0.58632	0.00118	0.58869
cvcrsk3cc_4_8_15	15246	14900	1380	6.02	12619	8842	52.50	5937	970.54	8.88	-227	0.58543	0.00106	0.58756
cvcrsk3cc_4_8_16	15246	14900	1380	6.02	12619	8842	56.25	6362	970.54	8.88	-227	0.58716	0.00123	0.58962
cvcrsk3cc_4_8_17	15246	14900	1380	6.02	12619	8842	60.00	6786	970.54	8.88	-227	0.58845	0.00113	0.59071
cvcrsk3cc_4_9_1	15246	14900	1840	7.38	12619	8842	0.00	0	1294.06	11.2	-227	0.62013	0.00104	0.62220
cvcrsk3cc_4_9_2	15246	14900	1840	7.38	12619	8842	3.75	424	1294.06	11.2	-227	0.61947	0.00123	0.62193
cvcrsk3cc_4_9_3	15246	14900	1840	7.38	12619	8842	7.50	848	1294.06	11.2	-227	0.62178	0.00112	0.62402
cvcrsk3cc_4_9_4	15246	14900	1840	7.38	12619	8842	11.25	1272	1294.06	11.2	-227	0.62009	0.00108	0.62225
cvcrsk3cc_4_9_5	15246	14900	1840	7.38	12619	8842	15.00	1696	1294.06	11.2	-227	0.61950	0.00114	0.62178
cvcrsk3cc_4_9_6	15246	14900	1840	7.38	12619	8842	18.75	2120	1294.06	11.2	-227	0.62035	0.00102	0.62240
cvcrsk3cc_4_9_7	15246	14900	1840	7.38	12619	8842	22.50	2545	1294.06	11.2	-227	0.61820	0.00111	0.62042
cvcrsk3cc_4_9_8	15246	14900	1840	7.38	12619	8842	26.25	2969	1294.06	11.2	-227	0.62037	0.00127	0.62290
cvcrsk3cc_4_9_9	15246	14900	1840	7.38	12619	8842	30.00	3393	1294.06	11.2	-227	0.62084	0.00111	0.62306
cvcrsk3cc_4_9_10	15246	14900	1840	7.38	12619	8842	33.75	3817	1294.06	11.2	-227	0.61977	0.00114	0.62205
cvcrsk3cc_4_9_11	15246	14900	1840	7.38	12619	8842	37.50	4241	1294.06	11.2	-227	0.61997	0.00123	0.62243

Table 6.9.6-17. Results for skull oxide (SO) content in CV calculation model

case name	SO (g)	UO_3 (g)	Sat. H_2O (g)	SO h/x	U (g)	^{235}U (g)	C (g)	mg C/ g ^{235}U	CV H_2O (g)	CV h/x	Unident. (g)	k_{eff}	σ	$k_{eff}+2\sigma$
cvcrsk3cc_4_9_12	15246	14900	1840	7.38	12619	8842	41.25	4665	1294.06	11.2	-227	0.62097	0.00112	0.62320
cvcrsk3cc_4_9_13	15246	14900	1840	7.38	12619	8842	45.00	5089	1294.06	11.2	-227	0.62013	0.00126	0.62266
cvcrsk3cc_4_9_14	15246	14900	1840	7.38	12619	8842	48.75	5513	1294.06	11.2	-227	0.62028	0.00109	0.62245
cvcrsk3cc_4_9_15	15246	14900	1840	7.38	12619	8842	52.50	5937	1294.06	11.2	-227	0.62003	0.00107	0.62216
cvcrsk3cc_4_9_16	15246	14900	1840	7.38	12619	8842	56.25	6362	1294.06	11.2	-227	0.62193	0.00107	0.62408
cvcrsk3cc_4_9_17	15246	14900	1840	7.38	12619	8842	60.00	6786	1294.06	11.2	-227	0.62122	0.00117	0.62356
cvcrsk3cc_4_10_1	15246	14900	2300	8.73	12619	8842	0.00	0	1617.57	13.51	-227	0.65504	0.00131	0.65766
cvcrsk3cc_4_10_2	15246	14900	2300	8.73	12619	8842	3.75	424	1617.57	13.51	-227	0.65421	0.00099	0.65618
cvcrsk3cc_4_10_3	15246	14900	2300	8.73	12619	8842	7.50	848	1617.57	13.51	-227	0.65445	0.00123	0.65692
cvcrsk3cc_4_10_4	15246	14900	2300	8.73	12619	8842	11.25	1272	1617.57	13.51	-227	0.65392	0.00127	0.65646
cvcrsk3cc_4_10_5	15246	14900	2300	8.73	12619	8842	15.00	1696	1617.57	13.51	-227	0.65599	0.00134	0.65868
cvcrsk3cc_4_10_6	15246	14900	2300	8.73	12619	8842	18.75	2120	1617.57	13.51	-227	0.65239	0.00107	0.65454
cvcrsk3cc_4_10_7	15246	14900	2300	8.73	12619	8842	22.50	2545	1617.57	13.51	-227	0.65356	0.00101	0.65558
cvcrsk3cc_4_10_8	15246	14900	2300	8.73	12619	8842	26.25	2969	1617.57	13.51	-227	0.65451	0.00134	0.65719
cvcrsk3cc_4_10_9	15246	14900	2300	8.73	12619	8842	30.00	3393	1617.57	13.51	-227	0.65576	0.00140	0.65855
cvcrsk3cc_4_10_10	15246	14900	2300	8.73	12619	8842	33.75	3817	1617.57	13.51	-227	0.65386	0.00121	0.65629
cvcrsk3cc_4_10_11	15246	14900	2300	8.73	12619	8842	37.50	4241	1617.57	13.51	-227	0.65645	0.00113	0.65871
cvcrsk3cc_4_10_12	15246	14900	2300	8.73	12619	8842	41.25	4665	1617.57	13.51	-227	0.65406	0.00130	0.65666
cvcrsk3cc_4_10_13	15246	14900	2300	8.73	12619	8842	45.00	5089	1617.57	13.51	-227	0.65406	0.00120	0.65646
cvcrsk3cc_4_10_14	15246	14900	2300	8.73	12619	8842	48.75	5513	1617.57	13.51	-227	0.65484	0.00126	0.65736
cvcrsk3cc_4_10_15	15246	14900	2300	8.73	12619	8842	52.50	5937	1617.57	13.51	-227	0.65420	0.00128	0.65675
cvcrsk3cc_4_10_16	15246	14900	2300	8.73	12619	8842	56.25	6362	1617.57	13.51	-227	0.65433	0.00123	0.65679
cvcrsk3cc_4_10_17	15246	14900	2300	8.73	12619	8842	60.00	6786	1617.57	13.51	-227	0.65399	0.00123	0.65646

Table 6.9.6-17. Results for skull oxide (SO) content in CV calculation model

case name	SO (g)	UO_3 (g)	Sat. H_2O (g)	SO h/x	U (g)	^{235}U (g)	C (g)	mg C/ g ^{235}U	CV H_2O (g)	CV h/x	Unident. (g)	k_{eff}	σ	$k_{eff}+2\sigma$
cvcrsk3cc_4_11_1	15246	14900	2760	10.09	12619	8842	0.00	0	1941.09	15.82	-227	0.68728	0.00114	0.68956
cvcrsk3cc_4_11_2	15246	14900	2760	10.09	12619	8842	3.75	424	1941.09	15.82	-227	0.68899	0.00121	0.69141
cvcrsk3cc_4_11_3	15246	14900	2760	10.09	12619	8842	7.50	848	1941.09	15.82	-227	0.68815	0.00113	0.69041
cvcrsk3cc_4_11_4	15246	14900	2760	10.09	12619	8842	11.25	1272	1941.09	15.82	-227	0.68967	0.00117	0.69200
cvcrsk3cc_4_11_5	15246	14900	2760	10.09	12619	8842	15.00	1696	1941.09	15.82	-227	0.68936	0.00133	0.69201
cvcrsk3cc_4_11_6	15246	14900	2760	10.09	12619	8842	18.75	2120	1941.09	15.82	-227	0.68713	0.00127	0.68966
cvcrsk3cc_4_11_7	15246	14900	2760	10.09	12619	8842	22.50	2545	1941.09	15.82	-227	0.68933	0.00141	0.69216
cvcrsk3cc_4_11_8	15246	14900	2760	10.09	12619	8842	26.25	2969	1941.09	15.82	-227	0.68808	0.00130	0.69068
cvcrsk3cc_4_11_9	15246	14900	2760	10.09	12619	8842	30.00	3393	1941.09	15.82	-227	0.69012	0.00114	0.69239
cvcrsk3cc_4_11_10	15246	14900	2760	10.09	12619	8842	33.75	3817	1941.09	15.82	-227	0.68913	0.00148	0.69208
cvcrsk3cc_4_11_11	15246	14900	2760	10.09	12619	8842	37.50	4241	1941.09	15.82	-227	0.68961	0.00139	0.69239
cvcrsk3cc_4_11_12	15246	14900	2760	10.09	12619	8842	41.25	4665	1941.09	15.82	-227	0.68779	0.00113	0.69005
cvcrsk3cc_4_11_13	15246	14900	2760	10.09	12619	8842	45.00	5089	1941.09	15.82	-227	0.69197	0.00114	0.69425
cvcrsk3cc_4_11_14	15246	14900	2760	10.09	12619	8842	48.75	5513	1941.09	15.82	-227	0.68861	0.00114	0.69090
cvcrsk3cc_4_11_15	15246	14900	2760	10.09	12619	8842	52.50	5937	1941.09	15.82	-227	0.68815	0.00127	0.69069
cvcrsk3cc_4_11_16	15246	14900	2760	10.09	12619	8842	56.25	6362	1941.09	15.82	-227	0.69041	0.00131	0.69303
cvcrsk3cc_4_11_17	15246	14900	2760	10.09	12619	8842	60.00	6786	1941.09	15.82	-227	0.68744	0.00129	0.69003
cvcrsk3cc_4_12_1	15246	14900	3220	11.45	12619	8842	0.00	0	2264.6	18.13	-227	0.72168	0.00119	0.72405
cvcrsk3cc_4_12_2	15246	14900	3220	11.45	12619	8842	3.75	424	2264.6	18.13	-227	0.72398	0.00131	0.72660
cvcrsk3cc_4_12_3	15246	14900	3220	11.45	12619	8842	7.50	848	2264.6	18.13	-227	0.72501	0.00142	0.72786
cvcrsk3cc_4_12_4	15246	14900	3220	11.45	12619	8842	11.25	1272	2264.6	18.13	-227	0.72327	0.00132	0.72592
cvcrsk3cc_4_12_5	15246	14900	3220	11.45	12619	8842	15.00	1696	2264.6	18.13	-227	0.72278	0.00124	0.72526

Table 6.9.6-17. Results for skull oxide (SO) content in CV calculation model

case name	SO (g)	UO_3 (g)	Sat. H_2O (g)	SO h/x	U (g)	^{235}U (g)	C (g)	mg C/ g ^{235}U	CV H_2O (g)	CV h/x	Unident. (g)	k_{eff}	σ	$k_{eff}+2\sigma$
cvcrsk3cc_4_12_6	15246	14900	3220	11.45	12619	8842	18.75	2120	2264.6	18.13	-227	0.72081	0.00142	0.72364
cvcrsk3cc_4_12_7	15246	14900	3220	11.45	12619	8842	22.50	2545	2264.6	18.13	-227	0.72286	0.00141	0.72568
cvcrsk3cc_4_12_8	15246	14900	3220	11.45	12619	8842	26.25	2969	2264.6	18.13	-227	0.72457	0.00118	0.72693
cvcrsk3cc_4_12_9	15246	14900	3220	11.45	12619	8842	30.00	3393	2264.6	18.13	-227	0.72295	0.00126	0.72547
cvcrsk3cc_4_12_10	15246	14900	3220	11.45	12619	8842	33.75	3817	2264.6	18.13	-227	0.71959	0.00131	0.72221
cvcrsk3cc_4_12_11	15246	14900	3220	11.45	12619	8842	37.50	4241	2264.6	18.13	-227	0.72351	0.00106	0.72563
cvcrsk3cc_4_12_12	15246	14900	3220	11.45	12619	8842	41.25	4665	2264.6	18.13	-227	0.72291	0.00139	0.72570
cvcrsk3cc_4_12_13	15246	14900	3220	11.45	12619	8842	45.00	5089	2264.6	18.13	-227	0.72324	0.00125	0.72574
cvcrsk3cc_4_12_14	15246	14900	3220	11.45	12619	8842	48.75	5513	2264.6	18.13	-227	0.72395	0.00143	0.72680
cvcrsk3cc_4_12_15	15246	14900	3220	11.45	12619	8842	52.50	5937	2264.6	18.13	-227	0.72591	0.00111	0.72814
cvcrsk3cc_4_12_16	15246	14900	3220	11.45	12619	8842	56.25	6362	2264.6	18.13	-227	0.72242	0.00146	0.72535
cvcrsk3cc_4_12_17	15246	14900	3220	11.45	12619	8842	60.00	6786	2264.6	18.13	-227	0.72398	0.00117	0.72631
cvcrsk3cc_4_13_1	15246	14900	3679	12.81	12619	8842	0.00	0	2588.12	20.45	-227	0.75630	0.00133	0.75896
cvcrsk3cc_4_13_2	15246	14900	3679	12.81	12619	8842	3.75	424	2588.12	20.45	-227	0.75574	0.00132	0.75838
cvcrsk3cc_4_13_3	15246	14900	3679	12.81	12619	8842	7.50	848	2588.12	20.45	-227	0.75761	0.00136	0.76032
cvcrsk3cc_4_13_4	15246	14900	3679	12.81	12619	8842	11.25	1272	2588.12	20.45	-227	0.75747	0.00147	0.76042
cvcrsk3cc_4_13_5	15246	14900	3679	12.81	12619	8842	15.00	1696	2588.12	20.45	-227	0.75674	0.00120	0.75914
cvcrsk3cc_4_13_6	15246	14900	3679	12.81	12619	8842	18.75	2120	2588.12	20.45	-227	0.75883	0.00137	0.76157
cvcrsk3cc_4_13_7	15246	14900	3679	12.81	12619	8842	22.50	2545	2588.12	20.45	-227	0.75912	0.00125	0.76162
cvcrsk3cc_4_13_8	15246	14900	3679	12.81	12619	8842	26.25	2969	2588.12	20.45	-227	0.75690	0.00131	0.75952
cvcrsk3cc_4_13_9	15246	14900	3679	12.81	12619	8842	30.00	3393	2588.12	20.45	-227	0.75692	0.00123	0.75938
cvcrsk3cc_4_13_10	15246	14900	3679	12.81	12619	8842	33.75	3817	2588.12	20.45	-227	0.75676	0.00123	0.75923
cvcrsk3cc_4_13_11	15246	14900	3679	12.81	12619	8842	37.50	4241	2588.12	20.45	-227	0.75541	0.00134	0.75808

Table 6.9.6-17. Results for skull oxide (SO) content in CV calculation model

case name	SO (g)	UO_3 (g)	Sat. H_2O (g)	SO h/x	U (g)	^{235}U (g)	C (g)	mg C/ g ^{235}U	CV H_2O (g)	CV h/x	Unident. (g)	k_{eff}	σ	$k_{eff}+2\sigma$
cvcrsk3cc_4_13_12	15246	14900	3679	12.81	12619	8842	41.25	4665	2588.12	20.45	-227	0.75894	0.00141	0.76176
cvcrsk3cc_4_13_13	15246	14900	3679	12.81	12619	8842	45.00	5089	2588.12	20.45	-227	0.75688	0.00137	0.75963
cvcrsk3cc_4_13_14	15246	14900	3679	12.81	12619	8842	48.75	5513	2588.12	20.45	-227	0.75618	0.00140	0.75898
cvcrsk3cc_4_13_15	15246	14900	3679	12.81	12619	8842	52.50	5937	2588.12	20.45	-227	0.75806	0.00143	0.76092
cvcrsk3cc_4_13_16	15246	14900	3679	12.81	12619	8842	56.25	6362	2588.12	20.45	-227	0.75838	0.00131	0.76100
cvcrsk3cc_4_13_17	15246	14900	3679	12.81	12619	8842	60.00	6786	2588.12	20.45	-227	0.75890	0.00130	0.76150
cvcrsk3cc_4_14_1	15246	14900	4139	14.16	12619	8842	0.00	0	2911.63	22.76	-227	0.78934	0.00142	0.79219
cvcrsk3cc_4_14_2	15246	14900	4139	14.16	12619	8842	3.75	424	2911.63	22.76	-227	0.79102	0.00153	0.79408
cvcrsk3cc_4_14_3	15246	14900	4139	14.16	12619	8842	7.50	848	2911.63	22.76	-227	0.78792	0.00140	0.79073
cvcrsk3cc_4_14_4	15246	14900	4139	14.16	12619	8842	11.25	1272	2911.63	22.76	-227	0.78817	0.00122	0.79061
cvcrsk3cc_4_14_5	15246	14900	4139	14.16	12619	8842	15.00	1696	2911.63	22.76	-227	0.79185	0.00133	0.79451
cvcrsk3cc_4_14_6	15246	14900	4139	14.16	12619	8842	18.75	2120	2911.63	22.76	-227	0.78935	0.00155	0.79244
cvcrsk3cc_4_14_7	15246	14900	4139	14.16	12619	8842	22.50	2545	2911.63	22.76	-227	0.79031	0.00139	0.79310
cvcrsk3cc_4_14_8	15246	14900	4139	14.16	12619	8842	26.25	2969	2911.63	22.76	-227	0.79032	0.00119	0.79269
cvcrsk3cc_4_14_9	15246	14900	4139	14.16	12619	8842	30.00	3393	2911.63	22.76	-227	0.79075	0.00125	0.79326
cvcrsk3cc_4_14_10	15246	14900	4139	14.16	12619	8842	33.75	3817	2911.63	22.76	-227	0.78950	0.00127	0.79203
cvcrsk3cc_4_14_11	15246	14900	4139	14.16	12619	8842	37.50	4241	2911.63	22.76	-227	0.79226	0.00132	0.79490
cvcrsk3cc_4_14_12	15246	14900	4139	14.16	12619	8842	41.25	4665	2911.63	22.76	-227	0.79141	0.00129	0.79400
cvcrsk3cc_4_14_13	15246	14900	4139	14.16	12619	8842	45.00	5089	2911.63	22.76	-227	0.79226	0.00131	0.79488
cvcrsk3cc_4_14_14	15246	14900	4139	14.16	12619	8842	48.75	5513	2911.63	22.76	-227	0.79139	0.00140	0.79418
cvcrsk3cc_4_14_15	15246	14900	4139	14.16	12619	8842	52.50	5937	2911.63	22.76	-227	0.79157	0.00136	0.79429
cvcrsk3cc_4_14_16	15246	14900	4139	14.16	12619	8842	56.25	6362	2911.63	22.76	-227	0.78883	0.00118	0.79119
cvcrsk3cc_4_14_17	15246	14900	4139	14.16	12619	8842	60.00	6786	2911.63	22.76	-227	0.79251	0.00163	0.79576

Table 6.9.6-17. Results for skull oxide (SO) content in CV calculation model

case name	SO (g)	UO_3 (g)	Sat. H_2O (g)	SO h/x	U (g)	^{235}U (g)	C (g)	mg C/ g ^{235}U	CV H_2O (g)	CV h/x	Unident. (g)	k_{eff}	σ	$k_{eff}+2\sigma$
cvcrsk3cc_4_15_1	15246	14900	4599	15.52	12619	8842	0.00	0	3235.15	25.07	-227	0.82370	0.00143	0.82655
cvcrsk3cc_4_15_2	15246	14900	4599	15.52	12619	8842	3.75	424	3235.15	25.07	-227	0.82249	0.00121	0.82491
cvcrsk3cc_4_15_3	15246	14900	4599	15.52	12619	8842	7.50	848	3235.15	25.07	-227	0.82289	0.00125	0.82539
cvcrsk3cc_4_15_4	15246	14900	4599	15.52	12619	8842	11.25	1272	3235.15	25.07	-227	0.82409	0.00117	0.82643
cvcrsk3cc_4_15_5	15246	14900	4599	15.52	12619	8842	15.00	1696	3235.15	25.07	-227	0.82541	0.00127	0.82794
cvcrsk3cc_4_15_6	15246	14900	4599	15.52	12619	8842	18.75	2120	3235.15	25.07	-227	0.82424	0.00123	0.82669
cvcrsk3cc_4_15_7	15246	14900	4599	15.52	12619	8842	22.50	2545	3235.15	25.07	-227	0.82476	0.00182	0.82841
cvcrsk3cc_4_15_8	15246	14900	4599	15.52	12619	8842	26.25	2969	3235.15	25.07	-227	0.82419	0.00142	0.82702
cvcrsk3cc_4_15_9	15246	14900	4599	15.52	12619	8842	30.00	3393	3235.15	25.07	-227	0.82530	0.00145	0.82820
cvcrsk3cc_4_15_10	15246	14900	4599	15.52	12619	8842	33.75	3817	3235.15	25.07	-227	0.82433	0.00155	0.82742
cvcrsk3cc_4_15_11	15246	14900	4599	15.52	12619	8842	37.50	4241	3235.15	25.07	-227	0.82379	0.00142	0.82663
cvcrsk3cc_4_15_12	15246	14900	4599	15.52	12619	8842	41.25	4665	3235.15	25.07	-227	0.82450	0.00146	0.82742
cvcrsk3cc_4_15_13	15246	14900	4599	15.52	12619	8842	45.00	5089	3235.15	25.07	-227	0.82666	0.00109	0.82883
cvcrsk3cc_4_15_14	15246	14900	4599	15.52	12619	8842	48.75	5513	3235.15	25.07	-227	0.82521	0.00125	0.82772
cvcrsk3cc_4_15_15	15246	14900	4599	15.52	12619	8842	52.50	5937	3235.15	25.07	-227	0.82544	0.00120	0.82784
cvcrsk3cc_4_15_16	15246	14900	4599	15.52	12619	8842	56.25	6362	3235.15	25.07	-227	0.82578	0.00133	0.82844
cvcrsk3cc_4_15_17	15246	14900	4599	15.52	12619	8842	60.00	6786	3235.15	25.07	-227	0.82622	0.00154	0.82930
cvcrsk3cc_6_1_17	15111	12933	0	4.17	10960	4122	921	223432	0	4.17	744	0.44158	0.00098	0.44355
cvcrsk3cc_6_6_17	15111	12933	377	6.56	10960	4122	921	223432	410	9.16	744	0.46812	0.00103	0.47018
cvcrsk3cc_6_7_17	15111	12933	753	8.94	10960	4122	921	223432	821	14.14	744	0.49580	0.00108	0.49797
cvcrsk3cc_6_8_17	15111	12933	1130	11.33	10960	4122	921	223432	1231	19.12	744	0.52824	0.00111	0.53046
cvcrsk3cc_6_9_17	15111	12933	1506	13.71	10960	4122	921	223432	1642	24.11	744	0.55880	0.00129	0.56139

Table 6.9.6-17. Results for skull oxide (SO) content in CV calculation model

case name	SO (g)	UO_3 (g)	Sat. H_2O (g)	SO h/x	U (g)	^{235}U (g)	C (g)	mg C/ g ^{235}U	CV H_2O (g)	CV h/x	Unident. (g)	k_{eff}	σ	$k_{eff}+2\sigma$
cvcrsk3cc_6_10_17	15111	12933	1883	16.09	10960	4122	921	223432	2052	29.09	744	0.58946	0.00103	0.59153
cvcrsk3cc_6_11_17	15111	12933	2259	18.48	10960	4122	921	223432	2463	34.07	744	0.62334	0.00130	0.62593
cvcrsk3cc_6_12_17	15111	12933	2636	20.86	10960	4122	921	223432	2873	39.06	744	0.65813	0.00115	0.66044
cvcrsk3cc_6_13_17	15111	12933	3012	23.25	10960	4122	921	223432	3284	44.04	744	0.69032	0.00104	0.69240
cvcrsk3cc_6_14_17	15111	12933	3389	25.63	10960	4122	921	223432	3694	49.02	744	0.72104	0.00142	0.72388
cvcrsk3cc_6_15_17	15111	12933	3765	28.02	10960	4122	921	223432	4105	54.01	744	0.75711	0.00110	0.75932

Table 6.9.6-18a. NCT results for skull oxide (SO) content in packaging calculation model

case name	SO (g)	U_3O_8 (g)	Sat. H_2O (g)	SO h/x	U (g)	^{235}U (g)	C (g)	mg C/ g ^{235}U	CV H_2O (g)	CV h/x	Unident. (g)	k_{eff}	σ	$k_{eff}+2\sigma$
content in flooded CV, NCT single package, reflected														
513 g polyethylene, no can spacers														
ncsrsk_1_15	11589	8063	4468	28.09	6828	4765	417	87518	4105	50.58	2596	0.71933	0.00154	0.72241
ncsrsk_2_15	14934	11665	4015	17.79	9879	6858	504	73492	4105	33.41	2252	0.70319	0.00144	0.70606
ncsrsk_3_15	13821	11876	4893	20.62	10058	7028	372	52930	3233	32.62	1060	0.71916	0.00128	0.72172
ncsrsk_4_15	15246	14900	4599	15.52	12619	8842	60	6786	3235	25.07	-227	0.71123	0.00145	0.71413
ncsrsk_5_15	21216	21036	3869	9.49	17815	12455	27	2168	3235	16.27	-360	0.69577	0.00139	0.69855
ncsrsk_6_15	15111	12933	3765	28.02	10960	4122	921	223432	4105	54.01	744	0.63803	0.00171	0.64146
ncsrsk_7_15	13155	11666	3989	32.68	9886	3712	609	164054	4106	61.55	367	0.65018	0.00127	0.65271
ncsrsk_8_15	13650	11689	4068	33.01	9906	3737	261	69834	4106	61.69	1187	0.65349	0.00128	0.65604
ncsrsk_9_15	21300	19865	3801	7.43	16816	15673	921	58764	3235	12.82	1	0.73837	0.00130	0.74096
ncsrsk_10_15	21300	20786	3905	7.27	17596	16399	0	0	3235	12.41	1	0.74201	0.00149	0.74499

Table 6.9.6-18a. NCT results for skull oxide (SO) content in packaging calculation model

case name	SO (g)	U_3O_8 (g)	Sat. H_2O (g)	SO h/x	U (g)	^{235}U (g)	C (g)	mg C/ g ^{235}U	CV H_2O (g)	CV h/x	Unident. (g)	k_{eff}	σ	$k_{eff}+2\sigma$
ncsrsk_9_1	21300	19865	0	1.10	16816	15673	921	58764	0	1.10	1	0.40142	0.00078	0.40297
ncsrsk_9_6	21300	19865	380	1.73	16816	15673	921	58764	324	2.27	1	0.43142	0.00096	0.43334
ncsrsk_9_7	21300	19865	760	2.36	16816	15673	921	58764	647	3.44	1	0.46578	0.00099	0.46776
ncsrsk_9_8	21300	19865	1140	3.00	16816	15673	921	58764	971	4.61	1	0.49839	0.00107	0.50053
ncsrsk_9_9	21300	19865	1521	3.63	16816	15673	921	58764	1294	5.79	1	0.53148	0.00124	0.53397
ncsrsk_9_10	21300	19865	1901	4.26	16816	15673	921	58764	1618	6.96	1	0.56633	0.00122	0.56877
ncsrsk_9_11	21300	19865	2281	4.90	16816	15673	921	58764	1941	8.13	1	0.60204	0.00118	0.60441
ncsrsk_9_12	21300	19865	2661	5.53	16816	15673	921	58764	2265	9.30	1	0.63600	0.00119	0.63839
ncsrsk_9_13	21300	19865	3041	6.16	16816	15673	921	58764	2588	10.47	1	0.67128	0.00130	0.67389
ncsrsk_9_14	21300	19865	3421	6.80	16816	15673	921	58764	2912	11.64	1	0.70363	0.00130	0.70623
ncsrsk_9_15	21300	19865	3801	7.43	16816	15673	921	58764	3235	12.82	1	0.73837	0.00130	0.74096
ncsrsk_10_1	21300	20786	0	1.05	17596	16399	0	0	0	1.05	1	0.40278	0.00079	0.40436
ncsrsk_10_6	21300	20786	391	1.67	17596	16399	0	0	324	2.19	1	0.43497	0.00093	0.43683
ncsrsk_10_7	21300	20786	781	2.29	17596	16399	0	0	647	3.32	1	0.46764	0.00104	0.46971
ncsrsk_10_8	21300	20786	1172	2.91	17596	16399	0	0	971	4.46	1	0.50067	0.00103	0.50274
ncsrsk_10_9	21300	20786	1562	3.54	17596	16399	0	0	1294	5.60	1	0.53570	0.00129	0.53828
ncsrsk_10_10	21300	20786	1953	4.16	17596	16399	0	0	1618	6.73	1	0.57116	0.00119	0.57355
ncsrsk_10_11	21300	20786	2343	4.78	17596	16399	0	0	1941	7.87	1	0.60642	0.00131	0.60904
ncsrsk_10_12	21300	20786	2734	5.40	17596	16399	0	0	2265	9.00	1	0.63938	0.00118	0.64175
ncsrsk_10_13	21300	20786	3124	6.02	17596	16399	0	0	2588	10.14	1	0.67610	0.00123	0.67856
ncsrsk_10_14	21300	20786	3515	6.64	17596	16399	0	0	2912	11.28	1	0.70857	0.00115	0.71087
ncsrsk_10_15	21300	20786	3905	7.27	17596	16399	0	0	3235	12.41	1	0.74201	0.00149	0.74499

Table 6.9.6-18a. NCT results for skull oxide (SO) content in packaging calculation model

case name	SO (g)	U_3O_8 (g)	Sat. H_2O (g)	SO h/x	U (g)	^{235}U (g)	C (g)	mg C/ g ^{235}U	CV H_2O (g)	CV h/x	Unident. (g)	k_{eff}	σ	$k_{eff}+2\sigma$
content in flooded containment vessel, NCT array packaging calculation model for CSI=0.0														
513 g polyethylene, no can spacers														
nciask_1_15	11589	8063	4468	28.09	6828	4765	417	87518	4105	50.58	2596	0.73555	0.00130	0.73814
nciask_2_15	14934	11665	4015	17.79	9879	6858	504	73492	4105	33.41	2252	0.72258	0.00122	0.72503
nciask_3_15	13821	11876	4893	20.62	10058	7028	372	52930	3233	32.62	1060	0.73483	0.00120	0.73724
nciask_4_15	15246	14900	4599	15.52	12619	8842	60	6786	3235	25.07	-227	0.72783	0.00122	0.73027
nciask_5_15	21216	21036	3869	9.49	17815	12455	27	2168	3235	16.27	-360	0.71163	0.00123	0.71409
nciask_6_15	15111	12933	3765	28.02	10960	4122	921	223432	4105	54.01	744	0.65333	0.00109	0.65551
nciask_7_15	13155	11666	3989	32.68	9886	3712	609	164054	4106	61.55	367	0.66124	0.00107	0.66339
nciask_8_15	13650	11689	4068	33.01	9906	3737	261	69834	4106	61.69	1187	0.66664	0.00124	0.66912
nciask_9_15	21300	19865	3801	7.43	16816	15673	921	58764	3235	12.82	1	0.75365	0.00127	0.75620
nciask_10_15	21300	20786	3905	7.27	17596	16399	0	0	3235	12.41	1	0.76141	0.00140	0.76422
nciask_6_1	15111	12933	0	4.17	10960	4122	921	223432	0	4.17	744	0.26223	0.00069	0.26361
nciask_6_6	15111	12933	377	6.56	10960	4122	921	223432	410	9.16	744	0.29333	0.00078	0.29489
nciask_6_7	15111	12933	753	8.94	10960	4122	921	223432	821	14.14	744	0.32968	0.00084	0.33136
nciask_6_8	15111	12933	1130	11.33	10960	4122	921	223432	1231	19.12	744	0.36777	0.00088	0.36953
nciask_6_9	15111	12933	1506	13.71	10960	4122	921	223432	1642	24.11	744	0.40621	0.00127	0.40874
nciask_6_10	15111	12933	1883	16.09	10960	4122	921	223432	2052	29.09	744	0.44807	0.00116	0.45039
nciask_6_11	15111	12933	2259	18.48	10960	4122	921	223432	2463	34.07	744	0.49212	0.00111	0.49435
nciask_6_12	15111	12933	2636	20.86	10960	4122	921	223432	2873	39.06	744	0.53233	0.00122	0.53477
nciask_6_13	15111	12933	3012	23.25	10960	4122	921	223432	3284	44.04	744	0.57192	0.00123	0.57439
nciask_6_14	15111	12933	3389	25.63	10960	4122	921	223432	3694	49.02	744	0.61188	0.00136	0.61460
nciask_6_15	15111	12933	3765	28.02	10960	4122	921	223432	4105	54.01	744	0.65333	0.00109	0.65551

Table 6.9.6-18a. NCT results for skull oxide (SO) content in packaging calculation model

case name	SO (g)	U_3O_8 (g)	Sat. H_2O (g)	SO h/x	U (g)	^{235}U (g)	C (g)	mg C/ g ^{235}U	CV H_2O (g)	CV h/x	Unident. (g)	k_{eff}	σ	$k_{eff}+2\sigma$
nciask_9_1	21300	19865	0	1.1	16816	15673	921	58764	0	1.10	1	0.41949	0.00093	0.42134
nciask_9_6	21300	19865	380	1.73	16816	15673	921	58764	324	2.27	1	0.45272	0.00092	0.45456
nciask_9_7	21300	19865	760	2.36	16816	15673	921	58764	647	3.44	1	0.48472	0.00116	0.48704
nciask_9_8	21300	19865	1140	3	16816	15673	921	58764	971	4.61	1	0.51805	0.00111	0.52027
nciask_9_9	21300	19865	1521	3.63	16816	15673	921	58764	1294	5.79	1	0.55105	0.00116	0.55336
nciask_9_10	21300	19865	1901	4.26	16816	15673	921	58764	1618	6.96	1	0.58571	0.00105	0.58780
nciask_9_11	21300	19865	2281	4.9	16816	15673	921	58764	1941	8.13	1	0.62158	0.00114	0.62386
nciask_9_12	21300	19865	2661	5.53	16816	15673	921	58764	2265	9.30	1	0.65700	0.00141	0.65983
nciask_9_13	21300	19865	3041	6.16	16816	15673	921	58764	2588	10.47	1	0.68964	0.00125	0.69214
nciask_9_14	21300	19865	3421	6.8	16816	15673	921	58764	2912	11.64	1	0.72169	0.00141	0.72451
nciask_9_15	21300	19865	3801	7.43	16816	15673	921	58764	3235	12.82	1	0.75365	0.00127	0.75620
nciask_10_1	21300	20786	0	1.05	17596	16399	0	0	0	1.05	1	0.42530	0.00082	0.42693
nciask_10_6	21300	20786	391	1.67	17596	16399	0	0	324	2.19	1	0.45517	0.00080	0.45677
nciask_10_7	21300	20786	781	2.29	17596	16399	0	0	647	3.32	1	0.48754	0.00099	0.48952
nciask_10_8	21300	20786	1172	2.91	17596	16399	0	0	971	4.46	1	0.52247	0.00101	0.52448
nciask_10_9	21300	20786	1562	3.54	17596	16399	0	0	1294	5.60	1	0.55799	0.00107	0.56013
nciask_10_10	21300	20786	1953	4.16	17596	16399	0	0	1618	6.73	1	0.59209	0.00104	0.59416
nciask_10_11	21300	20786	2343	4.78	17596	16399	0	0	1941	7.87	1	0.62721	0.00107	0.62935
nciask_10_12	21300	20786	2734	5.4	17596	16399	0	0	2265	9.00	1	0.65769	0.00115	0.65999
nciask_10_13	21300	20786	3124	6.02	17596	16399	0	0	2588	10.14	1	0.69394	0.00131	0.69655
nciask_10_14	21300	20786	3515	6.64	17596	16399	0	0	2912	11.28	1	0.72808	0.00150	0.73109
nciask_10_15	21300	20786	3905	7.27	17596	16399	0	0	3235	12.41	1	0.76141	0.00140	0.76422

Table 6.9.6-18b. HAC results for skull oxide (SO) content in packaging calculation model

case name	SO (g)	U_3O_8 (g)	Sat. H_2O (g)	SO h/x	U (g)	^{235}U (g)	C (g)	mg C/ g ^{235}U	CV H_2O (g)	CV h/x	Unident. (g)	k_{eff}	σ	$k_{eff}+2\sigma$
content in flooded CV, HAC single package, reflected														
513 g polyethylene, no can spacers														
hcsrsk_1_15	11589	8063	4468	28.09	6828	4765	417	87518	4105	50.58	2596	0.72049	0.00145	0.72339
hcsrsk_2_15	14934	11665	4015	17.79	9879	6858	504	73492	4105	33.41	2252	0.70717	0.00140	0.70997
hcsrsk_3_15	13821	11876	4893	20.62	10058	7028	372	52930	3233	32.62	1060	0.72081	0.00136	0.72353
hcsrsk_4_15	15246	14900	4599	15.52	12619	8842	60	6786	3235	25.07	-227	0.71449	0.00128	0.71706
hcsrsk_5_15	21216	21036	3869	9.49	17815	12455	27	2168	3235	16.27	-360	0.69845	0.00134	0.70113
hcsrsk_6_15	15111	12933	3765	28.02	10960	4122	921	223432	4105	54.01	744	0.63787	0.00140	0.64066
hcsrsk_7_15	13155	11666	3989	32.68	9886	3712	609	164054	4106	61.55	367	0.64910	0.00150	0.65210
hcsrsk_8_15	13650	11689	4068	33.01	9906	3737	261	69834	4106	61.69	1187	0.65332	0.00140	0.65613
hcsrsk_9_15	21300	19865	3801	7.43	16816	15673	921	58764	3235	12.82	1	0.73855	0.00121	0.74096
hcsrsk_10_15	21300	20786	3905	7.27	17596	16399	0	0	3235	12.41	1	0.74359	0.00118	0.74595
hcsrsk_9_1	21300	19865	0	1.10	16816	15673	921	58764	0	1.10	1	0.40344	0.00080	0.40505
hcsrsk_9_6	21300	19865	380	1.73	16816	15673	921	58764	324	2.27	1	0.43432	0.00091	0.43614
hcsrsk_9_7	21300	19865	760	2.36	16816	15673	921	58764	647	3.44	1	0.46617	0.00090	0.46796
hcsrsk_9_8	21300	19865	1140	3.00	16816	15673	921	58764	971	4.61	1	0.49951	0.00104	0.50160
hcsrsk_9_9	21300	19865	1521	3.63	16816	15673	921	58764	1294	5.79	1	0.53428	0.00114	0.53656
hcsrsk_9_10	21300	19865	1901	4.26	16816	15673	921	58764	1618	6.96	1	0.57081	0.00102	0.57286
hcsrsk_9_11	21300	19865	2281	4.90	16816	15673	921	58764	1941	8.13	1	0.60569	0.00111	0.60792
hcsrsk_9_12	21300	19865	2661	5.53	16816	15673	921	58764	2265	9.30	1	0.63704	0.00125	0.63955
hcsrsk_9_13	21300	19865	3041	6.16	16816	15673	921	58764	2588	10.47	1	0.67153	0.00139	0.67431

Table 6.9.6-18b. HAC results for skull oxide (SO) content in packaging calculation model

case name	SO (g)	U_3O_8 (g)	Sat. H_2O (g)	SO h/x	U (g)	^{235}U (g)	C (g)	mg C/ g ^{235}U	CV H_2O (g)	CV h/x	Unident. (g)	k_{eff}	σ	$k_{eff}+2\sigma$
hcsrsk_9_14	21300	19865	3421	6.80	16816	15673	921	58764	2912	11.64	1	0.70545	0.00113	0.70770
hcsrsk_9_15	21300	19865	3801	7.43	16816	15673	921	58764	3235	12.82	1	0.73855	0.00121	0.74096
hcsrsk_10_1	21300	20786	0	1.05	17596	16399	0	0	0	1.05	1	0.40569	0.00088	0.40745
hcsrsk_10_6	21300	20786	391	1.67	17596	16399	0	0	324	2.19	1	0.43659	0.00086	0.43832
hcsrsk_10_7	21300	20786	781	2.29	17596	16399	0	0	647	3.32	1	0.47008	0.00095	0.47198
hcsrsk_10_8	21300	20786	1172	2.91	17596	16399	0	0	971	4.46	1	0.50524	0.00097	0.50717
hcsrsk_10_9	21300	20786	1562	3.54	17596	16399	0	0	1294	5.60	1	0.53928	0.00102	0.54133
hcsrsk_10_10	21300	20786	1953	4.16	17596	16399	0	0	1618	6.73	1	0.57494	0.00115	0.57724
hcsrsk_10_11	21300	20786	2343	4.78	17596	16399	0	0	1941	7.87	1	0.60702	0.00111	0.60924
hcsrsk_10_12	21300	20786	2734	5.40	17596	16399	0	0	2265	9.00	1	0.64205	0.00132	0.64469
hcsrsk_10_13	21300	20786	3124	6.02	17596	16399	0	0	2588	10.14	1	0.67634	0.00138	0.67911
hcsrsk_10_14	21300	20786	3515	6.64	17596	16399	0	0	2912	11.28	1	0.71259	0.00144	0.71547
hcsrsk_10_15	21300	20786	3905	7.27	17596	16399	0	0	3235	12.41	1	0.74359	0.00118	0.74595
content in flooded containment vessel, HAC array packaging calculation model for CSI=0.0														
513 g polyethylene, no can spacers														
hciask_1_15	11589	8063	4468	28.09	6828	4765	417	87518	4105	50.58	2596	0.73896	0.00132	0.74159
hciask_2_15	14934	11665	4015	17.79	9879	6858	504	73492	4105	33.41	2252	0.72435	0.00127	0.72689
hciask_3_15	13821	11876	4893	20.62	10058	7028	372	52930	3233	32.62	1060	0.73900	0.00130	0.74160
hciask_4_15	15246	14900	4599	15.52	12619	8842	60	6786	3235	25.07	-227	0.73199	0.00123	0.73445
hciask_5_15	21216	21036	3869	9.49	17815	12455	27	2168	3235	16.27	-360	0.71601	0.00117	0.71835
hciask_6_15	15111	12933	3765	28.02	10960	4122	921	223432	4105	54.01	744	0.65587	0.00125	0.65837
hciask_7_15	13155	11666	3989	32.68	9886	3712	609	164054	4106	61.55	367	0.66608	0.00159	0.66925
hciask_8_15	13650	11689	4068	33.01	9906	3737	261	69834	4106	61.69	1187	0.66948	0.00153	0.67255

Table 6.9.6-18b. HAC results for skull oxide (SO) content in packaging calculation model

case name	SO (g)	U_3O_8 (g)	Sat. H_2O (g)	SO h/x	U (g)	^{235}U (g)	C (g)	mg C/ g ^{235}U	CV H_2O (g)	CV h/x	Unident. (g)	k_{eff}	σ	$k_{eff}+2\sigma$
hciask_9_15	21300	19865	3801	7.43	16816	15673	921	58764	3235	12.82	1	0.75757	0.00116	0.75989
hciask_10_15	21300	20786	3905	7.27	17596	16399	0	0	3235	12.41	1	0.76462	0.00131	0.76725
hciask_6_1	15111	12933	0	4.17	10960	4122	921	223432	0	4.17	744	0.26620	0.00075	0.26769
hciask_6_6	15111	12933	377	6.56	10960	4122	921	223432	411	9.16	744	0.29787	0.00085	0.29957
hciask_6_7	15111	12933	753	8.94	10960	4122	921	223432	821	14.14	744	0.33370	0.00085	0.33539
hciask_6_8	15111	12933	1130	11.33	10960	4122	921	223432	1231	19.12	744	0.37226	0.00098	0.37422
hciask_6_9	15111	12933	1506	13.71	10960	4122	921	223432	1642	24.11	744	0.41300	0.00083	0.41465
hciask_6_10	15111	12933	1883	16.09	10960	4122	921	223432	2052	29.09	744	0.45192	0.00106	0.45403
hciask_6_11	15111	12933	2259	18.48	10960	4122	921	223432	2463	34.07	744	0.49341	0.00113	0.49566
hciask_6_12	15111	12933	2636	20.86	10960	4122	921	223432	2873	39.06	744	0.53469	0.00111	0.53691
hciask_6_13	15111	12933	3012	23.25	10960	4122	921	223432	3284	44.04	744	0.57324	0.00123	0.57571
hciask_6_14	15111	12933	3389	25.63	10960	4122	921	223432	3694	49.02	744	0.61596	0.00125	0.61847
hciask_6_15	15111	12933	3765	28.02	10960	4122	921	223432	4105	54.01	744	0.65587	0.00125	0.65837
hciask_9_1	21300	19865	0	1.10	16816	15673	921	58764	0	1.10	1	0.42753	0.00091	0.42935
hciask_9_6	21300	19865	380	1.73	16816	15673	921	58764	324	2.27	1	0.45603	0.00103	0.45808
hciask_9_7	21300	19865	760	2.36	16816	15673	921	58764	647	3.44	1	0.48912	0.00101	0.49114
hciask_9_8	21300	19865	1140	3.00	16816	15673	921	58764	971	4.61	1	0.52104	0.00109	0.52322
hciask_9_9	21300	19865	1521	3.63	16816	15673	921	58764	1294	5.79	1	0.55643	0.00104	0.55851
hciask_9_10	21300	19865	1901	4.26	16816	15673	921	58764	1618	6.96	1	0.59193	0.00105	0.59403
hciask_9_11	21300	19865	2281	4.90	16816	15673	921	58764	1941	8.13	1	0.62726	0.00109	0.62945
hciask_9_12	21300	19865	2661	5.53	16816	15673	921	58764	2265	9.30	1	0.65952	0.00106	0.66163
hciask_9_13	21300	19865	3041	6.16	16816	15673	921	58764	2588	10.47	1	0.69094	0.00127	0.69348

Table 6.9.6-18b. HAC results for skull oxide (SO) content in packaging calculation model

case name	SO (g)	U_3O_8 (g)	Sat. H_2O (g)	SO h/x	U (g)	^{235}U (g)	C (g)	mg C/ g ^{235}U	CV H_2O (g)	CV h/x	Unident. (g)	k_{eff}	σ	$k_{eff}+2\sigma$
hciask_9_14	21300	19865	3421	6.80	16816	15673	921	58764	2912	11.64	1	0.72863	0.00116	0.73095
hciask_9_15	21300	19865	3801	7.43	16816	15673	921	58764	3235	12.82	1	0.75757	0.00116	0.75989
hciask_10_1	21300	20786	0	1.05	17596	16399	0	0	0	1.05	1	0.43087	0.00111	0.43308
hciask_10_6	21300	20786	391	1.67	17596	16399	0	0	324	2.19	1	0.46066	0.00092	0.46250
hciask_10_7	21300	20786	781	2.29	17596	16399	0	0	647	3.32	1	0.49381	0.00097	0.49574
hciask_10_8	21300	20786	1172	2.91	17596	16399	0	0	971	4.46	1	0.52679	0.00113	0.52906
hciask_10_9	21300	20786	1562	3.54	17596	16399	0	0	1294	5.60	1	0.56200	0.00121	0.56442
hciask_10_10	21300	20786	1953	4.16	17596	16399	0	0	1618	6.73	1	0.59673	0.00118	0.59908
hciask_10_11	21300	20786	2343	4.78	17596	16399	0	0	1941	7.87	1	0.63042	0.00109	0.63260
hciask_10_12	21300	20786	2734	5.40	17596	16399	0	0	2265	9.00	1	0.66502	0.00116	0.66735
hciask_10_13	21300	20786	3124	6.02	17596	16399	0	0	2588	10.14	1	0.69780	0.00108	0.69997
hciask_10_14	21300	20786	3515	6.64	17596	16399	0	0	2912	11.28	1	0.73223	0.00123	0.73470
hciask_10_15	21300	20786	3905	7.27	17596	16399	0	0	3235	12.41	1	0.76462	0.00131	0.76725
nciask_10_14	21300	20786	3515	6.64	17596	16399	0	0	2912	11.28	1	0.72808	0.00150	0.73109
nciask_10_15	21300	20786	3905	7.27	17596	16399	0	0	3235	12.41	1	0.76141	0.00140	0.76422

Table 6.9.6-19a. Results for $UZrH_x$ content in CV calculation model

case name	np	$UZrH_x$ (g)	^{235}U (g)	H_2O (g)	h/x	mocfr	k_{eff}	σ	$k_{eff}+2\sigma$				
TRIGA ($UZrH_x$) fuel content at 19.7 wt % ^{235}U, 500 g CH_2, containment vessel, reflected													
no can spacers (np thickness = 0.0 in.)													
cvcrtriga_1_1	0.0	10,400	921	0	0.00	1.0e-20	0.34219	0.00107	0.34432				
cvcrtriga_1_6	0.0	10,400	921	900	25.50	1.0e-01	0.34704	0.00101	0.34905				
cvcrtriga_1_7	0.0	10,400	921	1,800	51.00	2.0e-01	0.35869	0.00094	0.36057				
cvcrtriga_1_8	0.0	10,400	921	2,700	76.50	3.0e-01	0.37291	0.00103	0.37496				
cvcrtriga_1_9	0.0	10,400	921	3,599	102.00	4.0e-01	0.38978	0.00115	0.39209				
cvcrtriga_1_10	0.0	10,400	921	4,499	127.50	5.0e-01	0.41521	0.00099	0.41719				
cvcrtriga_1_11	0.0	10,400	921	5,399	153.00	6.0e-01	0.43399	0.00108	0.43616				
cvcrtriga_1_12	0.0	10,400	921	6,299	178.50	7.0e-01	0.45681	0.00116	0.45914				
cvcrtriga_1_13	0.0	10,400	921	7,199	204.00	8.0e-01	0.48121	0.00136	0.48393				
cvcrtriga_1_14	0.0	10,400	921	8,098	229.51	9.0e-01	0.50284	0.00114	0.50511				
cvcrtriga_1_15	0.0	10,400	921	8,998	255.01	1.0e+00	0.52494	0.00120	0.52735				
can spacers (np thickness = 1.4 in.)													
cvcrtriga_2_15	1.4	10,400	921	8,385	237.62	1.0e+00	0.42157	0.00099	0.42354				
TRIGA ($UZrH_x$) fuel content at 70.1 wt % ^{235}U, 500 g CH_2, containment vessel, reflected													
no can spacers (np thickness = 0.0 in.)													
cvcrtriga_70_1_1	0.0	6,847	408	0	0.00	1.0e+00	0.29196	0.00097	0.29391				
cvcrtriga_70_1_6	0.0	6,847	408	900	57.56	1.0e+00	0.30096	0.00102	0.30300				
cvcrtriga_70_1_7	0.0	6,847	408	1,800	115.13	1.0e+00	0.31496	0.00089	0.31674				
cvcrtriga_70_1_8	0.0	6,847	408	2,700	172.69	1.0e+00	0.33376	0.00106	0.33588				
cvcrtriga_70_1_9	0.0	6,847	408	3,599	230.26	1.0e+00	0.35363	0.00100	0.35564				

Table 6.9.6-19a. Results for $UZrH_x$ content in CV calculation model

case name	np	$UZrH_x$ (g)	^{235}U (g)	H_2O (g)	h/x	mocfr	k_{eff}	σ	$k_{eff}+2\sigma$				
cvcrtriga_70_1_10	0.0	6,847	408	4,499	287.82	1.0e+00	0.37761	0.00098	0.37956				
cvcrtriga_70_1_11	0.0	6,847	408	5,399	345.38	1.0e+00	0.40017	0.00120	0.40257				
cvcrtriga_70_1_12	0.0	6,847	408	6,299	402.95	1.0e+00	0.42263	0.00109	0.42481				
cvcrtriga_70_1_13	0.0	6,847	408	7,199	460.51	1.0e+00	0.44607	0.00120	0.44848				
cvcrtriga_70_1_14	0.0	6,847	408	8,098	518.07	1.0e+00	0.46618	0.00104	0.46827				
cvcrtriga_70_1_15	0.0	6,847	408	8,998	575.64	1.0e+00	0.48847	0.00130	0.49107				
can spacers (np thickness = 1.4 in.)													
cvcrtriga_70_2_15	1.4	6,847	408	8,385	536.39	1.0e+00	0.38372	0.00112	0.38596				

Table 6.9.6-19b. Results for $UZrH_x$ content spacing in CV calculation model

case name	$UZrH_x$ (g)	^{235}U (g)	H_2O (g)	h/x	pitch (cm)	pitch (in	k_{eff}	σ	$k_{eff}+2\sigma$
TRIGA ($UZrH_x$) fuel content at 19.7 wt % ^{235}U, triangular pitch spacing from touching sections to sections touching convenience can									
500 g CH_2 in cc, no can spacers (np thickness = 0.0 in.), containment vessel, reflected									
mocfr=1.0									
cvT20ptch_1_15_1	10,400	921	8,998	255.01	2.11201	1.440	0.48176	0.00106	0.48387
cvT20ptch_1_15_2	10,400	921	8,998	255.01	2.25466	1.537	0.49373	0.00119	0.49612
cvT20ptch_1_15_3	10,400	921	8,998	255.01	2.39731	1.635	0.50012	0.00131	0.50274
cvT20ptch_1_15_4	10,400	921	8,998	255.01	2.53996	1.732	0.50823	0.00110	0.51044
cvT20ptch_1_15_5	10,400	921	8,998	255.01	2.68261	1.829	0.51676	0.00126	0.51928
cvT20ptch_1_15_6	10,400	921	8,998	255.01	2.82526	1.927	0.52300	0.00115	0.52530
cvT20ptch_1_15_7	10,400	921	8,998	255.01	2.96791	2.024	0.52511	0.00127	0.52766
cvT20ptch_1_15_8	10,400	921	8,998	255.01	3.11056	2.121	0.52789	0.00116	0.53022

Table 6.9.6-19b. Results for $UZrH_x$ content spacing in CV calculation model

case name	$UZrH_x$ (g)	^{235}U (g)	H_2O (g)	h/x	pitch (cm)	pitch (in	k_{eff}	σ	$k_{eff}+2\sigma$
cvT20ptch_1_15_9	10,400	921	8,998	255.01	3.25321	2.218	0.52959	0.00109	0.53177
cvT20ptch_1_15_10	10,400	921	8,998	255.01	3.39586	2.316	0.52841	0.00115	0.53072
cvT20ptch_1_15_11	10,400	921	8,998	255.01	3.53851	2.413	0.52767	0.00109	0.52985
mocfr=0.9									
cvT20ptch_1_14_1	10,400	921	8,098	229.51	2.11201	1.440	0.46727	0.00112	0.46951
cvT20ptch_1_14_6	10,400	921	8,098	229.51	2.82526	1.927	0.50042	0.00110	0.50263
cvT20ptch_1_14_11	10,400	921	8,098	229.51	3.53851	2.413	0.51015	0.00114	0.51244
mocfr=0.8									
cvT20ptch_1_13_1	10,400	921	7,199	204.00	2.11201	1.440	0.44680	0.00107	0.44894
cvT20ptch_1_13_6	10,400	921	7,199	204.00	2.82526	1.927	0.47920	0.00102	0.48124
cvT20ptch_1_13_11	10,400	921	7,199	204.00	3.53851	2.413	0.49183	0.00115	0.49413
mocfr=0.7									
cvT20ptch_1_12_1	10,400	921	6,299	178.50	2.11201	1.440	0.43179	0.00117	0.43413
cvT20ptch_1_12_6	10,400	921	6,299	178.50	2.82526	1.927	0.45630	0.00123	0.45875
cvT20ptch_1_12_11	10,400	921	6,299	178.50	3.53851	2.413	0.46790	0.00112	0.47014
mocfr=0.6									
cvT20ptch_1_11_1	10,400	921	5,399	153.00	2.11201	1.440	0.41313	0.00109	0.41531
cvT20ptch_1_11_6	10,400	921	5,399	153.00	2.82526	1.927	0.43561	0.00115	0.43792
cvT20ptch_1_11_11	10,400	921	5,399	153.00	3.53851	2.413	0.44764	0.00100	0.44964
mocfr=0.5									
cvT20ptch_1_10_1	10,400	921	4,499	127.50	2.11201	1.440	0.39451	0.00106	0.39664
cvT20ptch_1_10_6	10,400	921	4,499	127.50	2.82526	1.927	0.41120	0.00128	0.41376
cvT20ptch_1_10_11	10,400	921	4,499	127.50	3.53851	2.413	0.42438	0.00120	0.42678

Table 6.9.6-19b. Results for $UZrH_x$ content spacing in CV calculation model

case name	$UZrH_x$ (g)	^{235}U (g)	H_2O (g)	h/x	pitch (cm)	pitch (in	k_{eff}	σ	$k_{eff}+2\sigma$
mocfr=0.4									
cvT20ptch_1_9_1	10,400	921	3,599	102.00	2.11201	1.440	0.38008	0.00097	0.38203
cvT20ptch_1_9_6	10,400	921	3,599	102.00	2.82526	1.927	0.39106	0.00098	0.39303
cvT20ptch_1_9_11	10,400	921	3,599	102.00	3.53851	2.413	0.40267	0.00126	0.40519
mocfr=0.3									
cvT20ptch_1_8_1	10,400	921	2,700	76.50	2.11201	1.440	0.36348	0.00091	0.36531
cvT20ptch_1_8_6	10,400	921	2,700	76.50	2.82526	1.927	0.37106	0.00102	0.37309
cvT20ptch_1_8_11	10,400	921	2,700	76.50	3.53851	2.413	0.38210	0.00098	0.38406
mocfr=0.2									
cvT20ptch_1_7_1	10,400	921	1,800	51.00	2.11201	1.440	0.35255	0.00094	0.35443
cvT20ptch_1_7_6	10,400	921	1,800	51.00	2.82526	1.927	0.35542	0.00089	0.35721
cvT20ptch_1_7_11	10,400	921	1,800	51.00	3.53851	2.413	0.36444	0.00091	0.36627
mocfr=0.1									
cvT20ptch_1_6_1	10,400	921	900	25.50	2.11201	1.440	0.34383	0.00115	0.34612
cvT20ptch_1_6_6	10,400	921	900	25.50	2.82526	1.927	0.34516	0.00093	0.34703
cvT20ptch_1_6_11	10,400	921	900	25.50	3.53851	2.413	0.35189	0.00102	0.35394
mocfr=1.0e-20									
cvT20ptch_1_1_1	10,400	921	0	0.00	2.11201	1.440	0.34314	0.00084	0.34482
cvT20ptch_1_1_6	10,400	921	0	0.00	2.82526	1.927	0.34273	0.00089	0.34452
cvT20ptch_1_1_11	10,400	921	0	0.00	3.53851	2.413	0.34291	0.00087	0.34466

Table 6.9.6-19c. Results for $UZrH_x$ content uranium weight fraction in CV calculation model

case name	$UZrH_x$ (g)	^{235}U (g)	H_2O (g)	h/x	mocfr	k_{eff}	σ	$k_{eff}+2\sigma$
TRIGA ($UZrH_x$) fuel content at 19.7 wt % ^{235}U, variation of uranium weight fraction in content								
500 g CH_2 in cc, no can spacers (np thickness = 0.0 in.), containment vessel, reflected								
45 Wt.% U								
cvTE20U45_1_15	10,400	921	8,998	255.01	1.0e+00	0.52494	0.00120	0.52735
cvTE20U45_1_14	10,400	921	8,098	229.51	9.0e-01	0.50284	0.00114	0.50511
cvTE20U45_1_13	10,400	921	7,199	204.00	8.0e-01	0.48121	0.00136	0.48393
cvTE20U45_1_12	10,400	921	6,299	178.50	7.0e-01	0.45681	0.00116	0.45914
cvTE20U45_1_11	10,400	921	5,399	153.00	6.0e-01	0.43399	0.00108	0.43616
cvTE20U45_1_10	10,400	921	4,499	127.50	5.0e-01	0.41521	0.00099	0.41719
cvTE20U45_1_9	10,400	921	3,599	102.00	4.0e-01	0.38978	0.00115	0.39209
cvTE20U45_1_8	10,400	921	2,700	76.50	3.0e-01	0.37291	0.00103	0.37496
cvTE20U45_1_7	10,400	921	1,800	51.00	2.0e-01	0.35869	0.00094	0.36057
cvTE20U45_1_6	10,400	921	900	25.50	1.0e-01	0.34704	0.00101	0.34905
cvTE20U45_1_1	10,400	921	0	0.00	1.0e-20	0.34219	0.00107	0.34432
30 Wt.% U								
cvTE20U30_1_15	8,250	489	8,998	480.29	1.0e+00	0.47671	0.00135	0.47942
cvTE20U30_1_14	8,250	489	8,098	432.26	9.0e-01	0.45562	0.00105	0.45772
cvTE20U30_1_13	8,250	489	7,199	384.23	8.0e-01	0.43218	0.00113	0.43445
cvTE20U30_1_12	8,250	489	6,299	336.20	7.0e-01	0.41165	0.00096	0.41356
cvTE20U30_1_11	8,250	489	5,399	288.17	6.0e-01	0.38706	0.00099	0.38903
cvTE20U30_1_10	8,250	489	4,499	240.14	5.0e-01	0.36759	0.00092	0.36944
cvTE20U30_1_9	8,250	489	3,599	192.11	4.0e-01	0.34766	0.00094	0.34954
cvTE20U30_1_8	8,250	489	2,700	144.09	3.0e-01	0.33073	0.00086	0.33245
cvTE20U30_1_7	8,250	489	1,800	96.06	2.0e-01	0.31555	0.00082	0.31720

Table 6.9.6-19c. Results for $UZrH_x$ content uranium weight fraction in CV calculation model

case name	$UZrH_x$ (g)	^{235}U (g)	H_2O (g)	h/x	mocfr	k_{eff}	σ	$k_{eff}+2\sigma$
cvTE20U30_1_6	8,250	489	900	48.03	1.0e-01	0.31018	0.00092	0.31202
cvTE20U30_1_01	8,250	489	0	0.00	1.0e-20	0.30488	0.00083	0.30654
20 Wt.% U								
cvTE20U20_1_15	7,545	297	8,998	790.78	1.0e+00	0.46046	0.00121	0.46289
cvTE20U20_1_14	7,545	297	8,098	711.70	9.0e-01	0.43928	0.00114	0.44156
cvTE20U20_1_13	7,545	297	7,199	632.62	8.0e-01	0.41486	0.00108	0.41702
cvTE20U20_1_12	7,545	297	6,299	553.54	7.0e-01	0.39584	0.00113	0.39809
cvTE20U20_1_11	7,545	297	5,399	474.47	6.0e-01	0.37399	0.00106	0.37612
cvTE20U20_1_10	7,545	297	4,499	395.39	5.0e-01	0.35345	0.00100	0.35545
cvTE20U20_1_9	7,545	297	3,599	316.31	4.0e-01	0.33290	0.00098	0.33486
cvTE20U20_1_8	7,545	297	2,700	237.23	3.0e-01	0.31513	0.00103	0.31719
cvTE20U20_1_7	7,545	297	1,800	158.16	2.0e-01	0.30148	0.00101	0.30350
cvTE20U20_1_6	7,545	297	900	79.08	1.0e-01	0.29354	0.00089	0.29532
cvTE20U20_1_1	7,545	297	0	0.00	1.0e-20	0.29227	0.00083	0.29392
12 Wt.% U								
cvTE20U12_1_15	7,125	168	8,998	1397.90	1.0e+00	0.44948	0.00108	0.45163
cvTE20U12_1_14	7,125	168	8,098	1258.10	9.0e-01	0.43067	0.00106	0.43280
cvTE20U12_1_13	7,125	168	7,199	1118.30	8.0e-01	0.40699	0.00098	0.40894
cvTE20U12_1_12	7,125	168	6,299	978.59	7.0e-01	0.38549	0.00098	0.38744
cvTE20U12_1_11	7,125	168	5,399	838.79	6.0e-01	0.36416	0.00089	0.36595
cvTE20U12_1_10	7,125	168	4,499	698.99	5.0e-01	0.34375	0.00106	0.34586
cvTE20U12_1_9	7,125	168	3,599	559.19	4.0e-01	0.32505	0.00108	0.32721
cvTE20U12_1_8	7,125	168	2,700	419.40	3.0e-01	0.30767	0.00087	0.30940
cvTE20U12_1_7	7,125	168	1,800	279.60	2.0e-01	0.29545	0.00076	0.29698

Table 6.9.6-19c. Results for $UZrH_x$ content uranium weight fraction in CV calculation model

case name	$UZrH_x$ (g)	^{235}U (g)	H_2O (g)	h/x	mocfr	k_{eff}	σ	$k_{eff}+2\sigma$
cvTE20U12_1_6	7,125	168	900	139.80	1.0e-01	0.28602	0.00086	0.28774
cvTE20U12_1_1	7,125	168	0	0.00	1.0e-20	0.28442	0.00079	0.28601
8.5 Wt.% U								
cvTE20U8p5_1_15	6,953	117	8,998	2007.30	1.0e+00	0.44412	0.00115	0.44643
cvTE20U8p5_1_14	6,953	117	8,098	1806.60	9.0e-01	0.42328	0.00110	0.42549
cvTE20U8p5_1_13	6,953	117	7,199	1605.80	8.0e-01	0.40452	0.00100	0.40652
cvTE20U8p5_1_12	6,953	117	6,299	1405.10	7.0e-01	0.38253	0.00122	0.38496
cvTE20U8p5_1_11	6,953	117	5,399	1204.40	6.0e-01	0.35988	0.00111	0.36209
cvTE20U8p5_1_10	6,953	117	4,499	1003.60	5.0e-01	0.33974	0.00099	0.34173
cvTE20U8p5_1_9	6,953	117	3,599	802.94	4.0e-01	0.31938	0.00090	0.32118
cvTE20U8p5_1_8	6,953	117	2,700	602.20	3.0e-01	0.30560	0.00084	0.30729
cvTE20U8p5_1_7	6,953	117	1,800	401.47	2.0e-01	0.29237	0.00085	0.29407
cvTE20U8p5_1_6	6,953	117	900	200.73	1.0e-01	0.28287	0.00104	0.28495
cvTE20U8p5_1_1	6,953	117	0	0.00	1.0e-20	0.28060	0.00080	0.28219
500 g CH_2 in cc, can spacers (np thickness = 1.4 in.), containment vessel, reflected								
cvTE20U45_02_15	10,400	921	8,385	237.62	1.0e+00	0.42157	0.00099	0.42354
cvTE20U30_02_15	8,250	489	8,385	447.54	1.0e+00	0.37862	0.00092	0.38046
cvTE20U20_02_15	7,545	297	8,385	736.86	1.0e+00	0.36052	0.00089	0.36229
cvTE20U12_02_15	7,125	168	8,385	1302.60	1.0e+00	0.35193	0.00100	0.35392
cvTE20U8p5_02_15	6,953	117	8,385	1870.40	1.0e+00	0.34847	0.00108	0.35064

Table 6.9.6-20a. Results for $UZrH_x$ content at 19.7 wt % ^{235}U in packaging calculation model

case name	np (in)	$UZrH_x$ (g)	^{235}U (g)	H_2O (g)	h/x	mocfr/ moifr	k_{eff}	σ	$k_{eff}+2\sigma$	case name	k_{eff}	σ	$k_{eff}+2\sigma$
content in flooded containment vessel, single package reflected													
NCT										HAC			
no can spacers (np thickness = 0.0 in.)													
mocfr													
ncsrtriga_1_1_15	0.0	10,400	921	0	0.00	1.0e-20	0.19699	0.00072	0.19844	hcsrtriga_1_1_15	0.19912	0.00071	0.20055
ncsrtriga_1_6_15	0.0	10,400	921	900	25.50	1.0e-01	0.22100	0.00077	0.22253	hcsrtriga_1_6_15	0.22405	0.00077	0.22559
ncsrtriga_1_7_15	0.0	10,400	921	1,800	51.00	2.0e-02	0.25006	0.00081	0.25167	hcsrtriga_1_7_15	0.25119	0.00075	0.25268
ncsrtriga_1_8_15	0.0	10,400	921	2,700	76.50	3.0e-01	0.27901	0.00083	0.28067	hcsrtriga_1_8_15	0.28071	0.00086	0.28243
ncsrtriga_1_9_15	0.0	10,400	921	3,599	102.00	4.0e-01	0.31206	0.00097	0.31399	hcsrtriga_1_9_15	0.31333	0.00093	0.31520
ncsrtriga_1_10_15	0.0	10,400	921	4,499	127.50	5.0e-01	0.34408	0.00096	0.34601	hcsrtriga_1_10_15	0.34576	0.00103	0.34781
ncsrtriga_1_11_15	0.0	10,400	921	5,399	153.00	6.0e-01	0.37488	0.00093	0.37674	hcsrtriga_1_11_15	0.37800	0.00111	0.38023
ncsrtriga_1_12_15	0.0	10,400	921	6,299	178.50	7.0e-01	0.40792	0.00107	0.41006	hcsrtriga_1_12_15	0.40683	0.00105	0.40893
ncsrtriga_1_13_15	0.0	10,400	921	7,199	204.00	8.0e-01	0.43782	0.00116	0.44013	hcsrtriga_1_13_15	0.43867	0.00123	0.44113
ncsrtriga_1_14_15	0.0	10,400	921	8,098	229.51	9.0e-01	0.46460	0.00106	0.46672	hcsrtriga_1_14_15	0.46627	0.00120	0.46867
ncsrtriga_1_15_15	0.0	10,400	921	8,998	255.01	1.0e+00	0.49295	0.00104	0.49503	hcsrtriga_1_15_15	0.49247	0.00103	0.49454
moifr													
ncsrtriga_1_15_1	0.0	10,400	921	8,998	255.01	1.0e-20	0.44499	0.00100	0.44700	hcsrtriga_1_15_1	0.44706	0.00104	0.44914
ncsrtriga_1_15_2	0.0	10,400	921	8,998	255.01	1.0e-05	0.44282	0.00109	0.44500	hcsrtriga_1_15_2	0.44626	0.00100	0.44825
ncsrtriga_1_15_3	0.0	10,400	921	8,998	255.01	1.0e-04	0.44454	0.00120	0.44693	hcsrtriga_1_15_3	0.44469	0.00125	0.44719
ncsrtriga_1_15_4	0.0	10,400	921	8,998	255.01	1.0e-03	0.44553	0.00111	0.44774	hcsrtriga_1_15_4	0.44692	0.00113	0.44918
ncsrtriga_1_15_5	0.0	10,400	921	8,998	255.01	1.0e-02	0.44389	0.00121	0.44631	hcsrtriga_1_15_5	0.44565	0.00104	0.44773
ncsrtriga_1_15_6	0.0	10,400	921	8,998	255.01	1.0e-01	0.44801	0.00104	0.45008	hcsrtriga_1_15_6	0.45115	0.00120	0.45356
ncsrtriga_1_15_8	0.0	10,400	921	8,998	255.01	3.0e-01	0.45921	0.00143	0.46207	hcsrtriga_1_15_8	0.46090	0.00112	0.46314
ncsrtriga_1_15_15	0.0	10,400	921	8,998	255.01	1.0e+00	0.49295	0.00104	0.49503	hcsrtriga_1_15_15	0.49247	0.00103	0.49454

Table 6.9.6-20a. Results for $UZrH_x$ content at 19.7 wt % ^{235}U in packaging calculation model

case name	np (in)	$UZrH_x$ (g)	^{235}U (g)	H_2O (g)	h/x	mocfr/ moifr	k_{eff}	σ	$k_{eff}+2\sigma$	case name	k_{eff}	σ	$k_{eff}+2\sigma$
with can spacers (np thickness = 1.4 in.)													
mocfr													
ncsrtriga_2_1_15	1.4	10,400	921	0	0.00	1.0e-20	0.16519	0.00060	0.16640	hcsrtriga_2_1_15	0.16449	0.00062	0.16573
ncsrtriga_2_6_15	1.4	10,400	921	839	23.76	1.0e-01	0.18078	0.00063	0.18204	hcsrtriga_2_6_15	0.18163	0.00061	0.18284
ncsrtriga_2_7_15	1.4	10,400	921	1,677	47.52	2.0e-01	0.20001	0.00066	0.20133	hcsrtriga_2_7_15	0.20112	0.00072	0.20256
ncsrtriga_2_8_15	1.4	10,400	921	2,515	71.29	3.0e-01	0.22235	0.00085	0.22405	hcsrtriga_2_8_15	0.22446	0.00079	0.22603
ncsrtriga_2_9_15	1.4	10,400	921	3,354	95.05	4.0e-01	0.24785	0.00076	0.24936	hcsrtriga_2_9_15	0.24932	0.00079	0.25090
ncsrtriga_2_10_15	1.4	10,400	921	4,192	118.81	5.0e-01	0.27336	0.00091	0.27517	hcsrtriga_2_10_15	0.27427	0.00084	0.27595
ncsrtriga_2_11_15	1.4	10,400	921	5,031	142.57	6.0e-01	0.29864	0.00105	0.30075	hcsrtriga_2_11_15	0.30007	0.00090	0.30188
ncsrtriga_2_12_15	1.4	10,400	921	5,869	166.33	7.0e-01	0.32492	0.00094	0.32680	hcsrtriga_2_12_15	0.32594	0.00113	0.32820
ncsrtriga_2_13_15	1.4	10,400	921	6,708	190.09	8.0e-01	0.35137	0.00101	0.35339	hcsrtriga_2_13_15	0.35174	0.00101	0.35375
ncsrtriga_2_14_15	1.4	10,400	921	7,546	213.86	9.0e-01	0.37602	0.00105	0.37812	hcsrtriga_2_14_15	0.37666	0.00093	0.37852
ncsrtriga_2_15_15	1.4	10,400	921	8,385	237.62	1.0e+00	0.40040	0.00106	0.40252	hcsrtriga_2_15_15	0.40020	0.00112	0.40244
moifr													
ncsrtriga_2_15_1	1.4	10,400	921	8,385	237.62	1.0e-20	0.36082	0.00102	0.36286	hcsrtriga_2_15_1	0.36370	0.00103	0.36576
ncsrtriga_2_15_2	1.4	10,400	921	8,385	237.62	1.0e-05	0.36163	0.00105	0.36373	hcsrtriga_2_15_2	0.36457	0.00097	0.36651
ncsrtriga_2_15_3	1.4	10,400	921	8,385	237.62	1.0e-04	0.36349	0.00115	0.36579	hcsrtriga_2_15_3	0.36369	0.00107	0.36584
ncsrtriga_2_15_4	1.4	10,400	921	8,385	237.62	1.0e-03	0.36368	0.00093	0.36554	hcsrtriga_2_15_4	0.36290	0.00107	0.36503
ncsrtriga_2_15_5	1.4	10,400	921	8,385	237.62	1.0e-02	0.36298	0.00111	0.36520	hcsrtriga_2_15_5	0.36275	0.00112	0.36498
ncsrtriga_2_15_6	1.4	10,400	921	8,385	237.62	1.0e-01	0.36587	0.00090	0.36766	hcsrtriga_2_15_6	0.37015	0.00095	0.37205
ncsrtriga_2_15_8	1.4	10,400	921	8,385	237.62	3.0e-01	0.37454	0.00104	0.37662	hcsrtriga_2_15_8	0.37482	0.00099	0.37680
ncsrtriga_2_15_15	1.4	10,400	921	8,385	237.62	1.0e+00	0.40040	0.00106	0.40252	hcsrtriga_2_15_15	0.40020	0.00112	0.40244

Table 6.9.6-20a. Results for $UZrH_x$ content at 19.7 wt % ^{235}U in packaging calculation model

case name	np (in)	$UZrH_x$ (g)	^{235}U (g)	H_2O (g)	h/x	mocfr/ moifr	k_{eff}	σ	$k_{eff}+2\sigma$	case name	k_{eff}	σ	$k_{eff}+2\sigma$
content in flooded containment vessel, array packaging model for CSI=0.0													
NCT										**HAC**			
no can spacers (np thickness = 0.0 in.)													
moifr													
nciatriga_1_1_3	0.0	10,400	921	0	0.00	1.0e-04	0.21653	0.00055	0.21763	hciatriga_1_1_3	0.21640	0.00062	0.21763
nciatriga_1_6_3	0.0	10,400	921	900	25.50	1.0e-04	0.24325	0.00064	0.24453	hciatriga_1_6_3	0.24355	0.00069	0.24493
nciatriga_1_7_3	0.0	10,400	921	1,800	51.00	1.0e-04	0.27402	0.00079	0.27561	hciatriga_1_7_3	0.27398	0.00073	0.27544
nciatriga_1_8_3	0.0	10,400	921	2,700	76.50	1.0e-04	0.30790	0.00105	0.30999	hciatriga_1_8_3	0.30795	0.00081	0.30958
nciatriga_1_9_3	0.0	10,400	921	3,599	102.00	1.0e-04	0.34171	0.00109	0.34390	hciatriga_1_9_3	0.34285	0.00108	0.34500
nciatriga_1_10_3	0.0	10,400	921	4,499	127.50	1.0e-04	0.37614	0.00108	0.37830	hciatriga_1_10_3	0.37487	0.00101	0.37689
nciatriga_1_11_3	0.0	10,400	921	5,399	153.00	1.0e-04	0.40944	0.00101	0.41146	hciatriga_1_11_3	0.40922	0.00099	0.41120
nciatriga_1_12_3	0.0	10,400	921	6,299	178.50	1.0e-04	0.44034	0.00116	0.44267	hciatriga_1_12_3	0.44217	0.00104	0.44426
nciatriga_1_13_3	0.0	10,400	921	7,199	204.00	1.0e-04	0.46949	0.00102	0.47153	hciatriga_1_13_3	0.46841	0.00104	0.47049
nciatriga_1_14_3	0.0	10,400	921	8,098	229.51	1.0e-04	0.49678	0.00102	0.49881	hciatriga_1_14_3	0.49952	0.00113	0.50179
nciatriga_1_15_3	0.0	10,400	921	8,998	255.01	1.0e-04	0.52325	0.00109	0.52543	hciatriga_1_15_3	0.52373	0.00117	0.52606
with can spacers (np thickness = 1.4 in.)													
nciatriga_2_1_3	1.4	10,400	921	0	0.00	1.0e-04	0.19663	0.00056	0.19775	hciatriga_2_1_3	0.19533	0.00058	0.19648
nciatriga_2_6_3	1.4	10,400	921	839	23.76	1.0e-04	0.21458	0.00063	0.21583	hciatriga_2_6_3	0.21404	0.00062	0.21528
nciatriga_2_7_3	1.4	10,400	921	1,677	47.52	1.0e-04	0.23878	0.00069	0.24017	hciatriga_2_7_3	0.23939	0.00065	0.24068
nciatriga_2_8_3	1.4	10,400	921	2,515	71.29	1.0e-04	0.26268	0.00095	0.26458	hciatriga_2_8_3	0.26265	0.00073	0.26410
nciatriga_2_9_3	1.4	10,400	921	3,354	95.05	1.0e-04	0.28930	0.00075	0.29081	hciatriga_2_9_3	0.29016	0.00077	0.29169
nciatriga_2_10_3	1.4	10,400	921	4,192	118.81	1.0e-04	0.31695	0.00092	0.31879	hciatriga_2_10_3	0.31775	0.00088	0.31951
nciatriga_2_11_3	1.4	10,400	921	5,031	142.57	1.0e-04	0.34183	0.00090	0.34364	hciatriga_2_11_3	0.34164	0.00096	0.34355
nciatriga_2_12_3	1.4	10,400	921	5,869	166.33	1.0e-04	0.36766	0.00092	0.36949	hciatriga_2_12_3	0.36733	0.00102	0.36937

Table 6.9.6-20a. Results for $UZrH_x$ content at 19.7 wt % ^{235}U in packaging calculation model

case name	np (in)	$UZrH_x$ (g)	^{235}U (g)	H_2O (g)	h/x	mocfr/ moifr	k_{eff}	σ	$k_{eff}+2\sigma$	case name	k_{eff}	σ	$k_{eff}+2\sigma$
nciatriga_2_13_3	1.4	10,400	921	6,708	190.09	1.0e-04	0.39176	0.00122	0.39420	hciatriga_2_13_3	0.39342	0.00103	0.39547
nciatriga_2_14_3	1.4	10,400	921	7,546	213.86	1.0e-04	0.41783	0.00101	0.41986	hciatriga_2_14_3	0.41760	0.00108	0.41976
nciatriga_2_15_3	1.4	10,400	921	8,385	237.62	1.0e-04	0.43993	0.00109	0.44211	hciatriga_2_15_3	0.44034	0.00119	0.44271

Table 6.9.6-20b. Results for $UZrH_x$ content at 70.1 wt % ^{235}U in packaging calculation model

case name	np (in)	$UZrH_x$ (g)	^{235}U (g)	H_2O (g)	h/x	mocfr/ moifr	k_{eff}	σ	$k_{eff}+2\sigma$	case name	k_{eff}	σ	$k_{eff}+2\sigma$
content in flooded containment vessel, single package reflected													
NCT										HAC			
no can spacers (np thickness = 0.0 in.)													
moifr													
ncsrtriga70_1_1_15	0.0	6,847	408	0	0.00	1.0e+00	0.15814	0.00073	0.15960	hcsrtriga70_1_1_15	0.15823	0.00062	0.15947
ncsrtriga70_1_6_15	0.0	6,847	408	900	57.56	1.0e+00	0.18268	0.00068	0.18403	hcsrtriga70_1_6_15	0.18526	0.00075	0.18676
ncsrtriga70_1_7_15	0.0	6,847	408	1,800	115.13	1.0e+00	0.21248	0.00074	0.21396	hcsrtriga70_1_7_15	0.21376	0.00082	0.21540
ncsrtriga70_1_8_15	0.0	6,847	408	2,700	172.69	1.0e+00	0.24596	0.00086	0.24769	hcsrtriga70_1_8_15	0.24666	0.00081	0.24829
ncsrtriga70_1_9_15	0.0	6,847	408	3,599	230.26	1.0e+00	0.27756	0.00103	0.27963	hcsrtriga70_1_9_15	0.27837	0.00085	0.28007
ncsrtriga70_1_10_15	0.0	6,847	408	4,499	287.82	1.0e+00	0.30903	0.00102	0.31107	hcsrtriga70_1_10_15	0.31172	0.00101	0.31374
ncsrtriga70_1_11_15	0.0	6,847	408	5,399	345.38	1.0e+00	0.34331	0.00121	0.34573	hcsrtriga70_1_11_15	0.34406	0.00110	0.34626
ncsrtriga70_1_12_15	0.0	6,847	408	6,299	402.95	1.0e+00	0.37320	0.00129	0.37578	hcsrtriga70_1_12_15	0.37419	0.00109	0.37637
ncsrtriga70_1_13_15	0.0	6,847	408	7,199	460.51	1.0e+00	0.40369	0.00106	0.40581	hcsrtriga70_1_13_15	0.40592	0.00110	0.40811
ncsrtriga70_1_14_15	0.0	6,847	408	8,098	518.07	1.0e+00	0.43096	0.00129	0.43353	hcsrtriga70_1_14_15	0.42993	0.00109	0.43212
ncsrtriga70_1_15_15	0.0	6,847	408	8,998	575.64	1.0e+00	0.45846	0.00117	0.46080	hcsrtriga70_1_15_15	0.45656	0.00108	0.45872

Table 6.9.6-20b. Results for $UZrH_x$ content at 70.1 wt % ^{235}U in packaging calculation model

case name	np (in)	$UZrH_x$ (g)	^{235}U (g)	H_2O (g)	h/x	mocfr/ moifr	k_{eff}	σ	$k_{eff}+2\sigma$	case name	k_{eff}	σ	$k_{eff}+2\sigma$
moifr													
ncsrtriga70_1_15_1	0.0	6,847	408	8,998	575.64	1.0e-20	0.40894	0.00119	0.41131	hcsrtriga70_1_15_1_	0.41076	0.00122	0.41320
ncsrtriga70_1_15_2	0.0	6,847	408	8,998	575.64	1.0e-05	0.40806	0.00115	0.41036	hcsrtriga70_1_15_2	0.41073	0.00130	0.41332
ncsrtriga70_1_15_3	0.0	6,847	408	8,998	575.64	1.0e-04	0.40992	0.00118	0.41228	hcsrtriga70_1_15_3	0.41080	0.00120	0.41319
ncsrtriga70_1_15_4	0.0	6,847	408	8,998	575.64	1.0e-03	0.41084	0.00110	0.41304	hcsrtriga70_1_15_4	0.41181	0.00115	0.41412
ncsrtriga70_1_15_5	0.0	6,847	408	8,998	575.64	1.0e-02	0.41069	0.00116	0.41300	hcsrtriga70_1_15_5	0.41159	0.00124	0.41407
ncsrtriga70_1_15_6	0.0	6,847	408	8,998	575.64	1.0e-01	0.41431	0.00107	0.41644	hcsrtriga70_1_15_6	0.41621	0.00123	0.41868
ncsrtriga70_1_15_8	0.0	6,847	408	8,998	575.64	3.0e-01	0.42523	0.00129	0.42780	hcsrtriga70_1_15_8	0.42893	0.00120	0.43133
ncsrtriga70_1_15_15	0.0	6,847	408	8,998	575.64	1.0e+00	0.45846	0.00117	0.46080	hcsrtriga70_1_15_15	0.45656	0.00108	0.45872
with can spacers (np thickness = 1.4 in.)													
moifr													
ncsrtriga70_2_1_15	1.4	6,847	408	0	0.00	1.0e+00	0.12174	0.00059	0.12291	hcsrtriga70_2_1_15	0.12413	0.00057	0.12528
ncsrtriga70_2_6_15	1.4	6,847	408	839	53.64	1.0e+00	0.14017	0.00063	0.14143	hcsrtriga70_2_6_15	0.14097	0.00061	0.14220
ncsrtriga70_2_7_15	1.4	6,847	408	1,677	107.28	1.0e+00	0.16109	0.00066	0.16241	hcsrtriga70_2_7_15	0.16260	0.00068	0.16396
ncsrtriga70_2_8_15	1.4	6,847	408	2,515	160.92	1.0e+00	0.18174	0.00080	0.18335	hcsrtriga70_2_8_15	0.18552	0.00067	0.18686
ncsrtriga70_2_9_15	1.4	6,847	408	3,354	214.55	1.0e+00	0.20707	0.00076	0.20859	hcsrtriga70_2_9_15	0.20911	0.00077	0.21064
ncsrtriga70_2_10_15	1.4	6,847	408	4,192	268.19	1.0e+00	0.23324	0.00089	0.23503	hcsrtriga70_2_10_15	0.23447	0.00074	0.23595
ncsrtriga70_2_11_15	1.4	6,847	408	5,031	321.83	1.0e+00	0.26093	0.00080	0.26254	hcsrtriga70_2_11_15	0.26039	0.00085	0.26209
ncsrtriga70_2_12_15	1.4	6,847	408	5,869	375.47	1.0e+00	0.28710	0.00084	0.28878	hcsrtriga70_2_12_15	0.28784	0.00093	0.28970
ncsrtriga70_2_13_15	1.4	6,847	408	6,708	429.11	1.0e+00	0.30929	0.00098	0.31124	hcsrtriga70_2_13_15	0.31105	0.00093	0.31291
ncsrtriga70_2_14_15	1.4	6,847	408	7,546	482.75	1.0e+00	0.33473	0.00114	0.33702	hcsrtriga70_2_14_15	0.33634	0.00094	0.33822
ncsrtriga70_2_15_15	1.4	6,847	408	8,385	536.39	1.0e+00	0.35776	0.00116	0.36008	hcsrtriga70_2_15_15	0.35922	0.00110	0.36142
moifr													
ncsrtriga70_2_15_1	1.4	6,847	408	8,385	536.39	1.0e-20	0.32321	0.00094	0.32508	hcsrtriga70_2_15_1	0.32561	0.00106	0.32774
ncsrtriga70_2_15_2	1.4	6,847	408	8,385	536.39	1.0e-05	0.32283	0.00092	0.32467	hcsrtriga70_2_15_2	0.32441	0.00099	0.32639

Table 6.9.6-20b. Results for $UZrH_x$ content at 70.1 wt % ^{235}U in packaging calculation model

case name	np (in)	$UZrH_x$ (g)	^{235}U (g)	H_2O (g)	h/x	mocfr/ moifr	k_{eff}	σ	$k_{eff}+2\sigma$	case name	k_{eff}	σ	$k_{eff}+2\sigma$
ncsrtriga70_2_15_3	1.4	6,847	408	8,385	536.39	1.0e-04	0.32432	0.00088	0.32608	hcsrtriga70_2_15_3	0.32423	0.00102	0.32628
ncsrtriga70_2_15_4	1.4	6,847	408	8,385	536.39	1.0e-03	0.32279	0.00104	0.32488	hcsrtriga70_2_15_4	0.32600	0.00111	0.32822
ncsrtriga70_2_15_5	1.4	6,847	408	8,385	536.39	1.0e-02	0.32448	0.00105	0.32658	hcsrtriga70_2_15_5	0.32622	0.00093	0.32808
ncsrtriga70_2_15_6	1.4	6,847	408	8,385	536.39	1.0e-01	0.32871	0.00097	0.33065	hcsrtriga70_2_15_6	0.32929	0.00110	0.33150
ncsrtriga70_2_15_8	1.4	6,847	408	8,385	536.39	3.0e-01	0.33627	0.00091	0.33809	hcsrtriga70_2_15_8	0.33709	0.00106	0.33920
ncsrtriga70_2_15_15	1.4	6,847	408	8,385	536.39	1.0e+00	0.35776	0.00116	0.36008	hcsrtriga70_2_15_15	0.35922	0.00110	0.36142
content in flooded containment vessel, array packaging model for CSI=0.0													
NCT										**HAC**			
no can spacers (np thickness = 0.0 in.)													
moifr													
nciatriga70_1_1_3	0.0	6,847	408	0	0.00	1.0e-04	0.16525	0.00063	0.16651	hciatriga70_1_1_3	0.16514	0.00067	0.16648
nciatriga70_1_6_3	0.0	6,847	408	900	57.56	1.0e-04	0.19360	0.00070	0.19500	hciatriga70_1_6_3	0.19280	0.00066	0.19411
nciatriga70_1_7_3	0.0	6,847	408	1,800	115.13	1.0e-04	0.22946	0.00076	0.23099	hciatriga70_1_7_3	0.23027	0.00076	0.23179
nciatriga70_1_8_3	0.0	6,847	408	2,700	172.69	1.0e-04	0.26461	0.00087	0.26635	hciatriga70_1_8_3	0.26463	0.00074	0.26612
nciatriga70_1_9_3	0.0	6,847	408	3,599	230.26	1.0e-04	0.30186	0.00095	0.30375	hciatriga70_1_9_3	0.30020	0.00084	0.30187
nciatriga70_1_10_3	0.0	6,847	408	4,499	287.82	1.0e-04	0.33608	0.00095	0.33798	hciatriga70_1_10_3	0.33776	0.00089	0.33954
nciatriga70_1_11_3	0.0	6,847	408	5,399	345.38	1.0e-04	0.37069	0.00105	0.37279	hciatriga70_1_11_3	0.37191	0.00104	0.37400
nciatriga70_1_12_3	0.0	6,847	408	6,299	402.95	1.0e-04	0.40431	0.00110	0.40651	hciatriga70_1_12_3	0.40368	0.00099	0.40567
nciatriga70_1_13_3	0.0	6,847	408	7,199	460.51	1.0e-04	0.43185	0.00143	0.43472	hciatriga70_1_13_3	0.43386	0.00141	0.43668
nciatriga70_1_14_3	0.0	6,847	408	8,098	518.07	1.0e-04	0.46029	0.00122	0.46272	hciatriga70_1_14_3	0.46036	0.00120	0.46277
nciatriga70_1_15_3	0.0	6,847	408	8,998	575.64	1.0e-04	0.48628	0.00123	0.48875	hciatriga70_1_15_3	0.48653	0.00107	0.48868
with can spacers (np thickness = 1.4 in.)													
nciatriga70_2_1_3	1.4	6,847	408	0	0.00	1.0e-04	0.14342	0.00054	0.14450	hciatriga70_2_1_3	0.14299	0.00055	0.14410
nciatriga70_2_6_3	1.4	6,847	408	839	53.64	1.0e-04	0.16333	0.00057	0.16446	hciatriga70_2_6_3	0.16444	0.00071	0.16586
nciatriga70_2_7_3	1.4	6,847	408	1,677	107.28	1.0e-04	0.18886	0.00069	0.19024	hciatriga70_2_7_3	0.18870	0.00075	0.19020

Table 6.9.6-20b. Results for $UZrH_x$ content at 70.1 wt % ^{235}U in packaging calculation model

case name	np (in)	$UZrH_x$ (g)	^{235}U (g)	H_2O (g)	h/x	mocfr/ moifr	k_{eff}	σ	$k_{eff}+2\sigma$	case name	k_{eff}	σ	$k_{eff}+2\sigma$
nciatriga70_2_8_3	1.4	6,847	408	2,515	160.92	1.0e-04	0.21548	0.00077	0.21703	hciatriga70_2_8_3	0.21709	0.00079	0.21867
nciatriga70_2_9_3	1.4	6,847	408	3,354	214.55	1.0e-04	0.24403	0.00092	0.24587	hciatriga70_2_9_3	0.24443	0.00082	0.24606
nciatriga70_2_10_3	1.4	6,847	408	4,192	268.19	1.0e-04	0.27230	0.00090	0.27410	hciatriga70_2_10_3	0.27167	0.00077	0.27321
nciatriga70_2_11_3	1.4	6,847	408	5,031	321.83	1.0e-04	0.29818	0.00092	0.30003	hciatriga70_2_11_3	0.29902	0.00096	0.30093
nciatriga70_2_12_3	1.4	6,847	408	5,869	375.47	1.0e-04	0.32583	0.00081	0.32745	hciatriga70_2_12_3	0.32607	0.00087	0.32781
nciatriga70_2_13_3	1.4	6,847	408	6,708	429.11	1.0e-04	0.35008	0.00102	0.35212	hciatriga70_2_13_3	0.34964	0.00088	0.35140
nciatriga70_2_14_3	1.4	6,847	408	7,546	482.75	1.0e-04	0.37201	0.00116	0.37434	hciatriga70_2_14_3	0.37167	0.00099	0.37364
nciatriga70_2_15_3	1.4	6,847	408	8,385	536.39	1.0e-04	0.39529	0.00120	0.39769	hciatriga70_2_15_3	0.39403	0.00109	0.39622

Table 6.9.6-20c. Results for 1.31 in. smaller diameter $UZrH_x$ content at 70.1 wt % ^{235}U in packaging calculation model

case name	np (in)	$UZrH_x$ (g)	^{235}U (g)	H_2O (g)	h/x	mocfr/ moifr	k_{eff}	σ	$k_{eff}+2\sigma$	case name	k_{eff}	σ	$k_{eff}+2\sigma$
1.31 in. diameter content in flooded containment vessel, single package reflected													
NCT													
no can spacers (np thickness = 0.0 in.)													
mocfr													
ncsrT70_131_1_1_15	0.0	5,667	338	0	0.00	1.0e+00	0.12864	0.00055	0.12974				
ncsrT70_131_1_6_15	0.0	5,667	338	920	71.15	1.0e+00	0.15144	0.00066	0.15276				
ncsrT70_131_1_7_15	0.0	5,667	338	1,841	142.31	1.0e+00	0.18245	0.00065	0.18375				
ncsrT70_131_1_8_15	0.0	5,667	338	2,762	213.46	1.0e+00	0.21360	0.00085	0.21530				
ncsrT70_131_1_9_15	0.0	5,667	338	3,682	284.61	1.0e+00	0.24688	0.00096	0.24880				
ncsrT70_131_1_10_15	0.0	5,667	338	4,602	355.77	1.0e+00	0.28138	0.00101	0.28340				
ncsrT70_131_1_11_15	0.0	5,667	338	5,523	426.92	1.0e+00	0.31377	0.00098	0.31574				

Table 6.9.6-20c. Results for 1.31 in. smaller diameter $UZrH_x$ content at 70.1 wt % ^{235}U in packaging calculation model

case name	np (in)	$UZrH_x$ (g)	^{235}U (g)	H_2O (g)	h/x	mocfr/ moifr	k_{eff}	σ	$k_{eff}+2\sigma$	case name	k_{eff}	σ	$k_{eff}+2\sigma$
ncsrT70_131_1_12_15	0.0	5,667	338	6,443	498.07	1.0e+00	0.34582	0.00107	0.34797				
ncsrT70_131_1_13_15	0.0	5,667	338	7,364	569.23	1.0e+00	0.37661	0.00103	0.37867				
ncsrT70_131_1_14_15	0.0	5,667	338	8,284	640.38	1.0e+00	0.40376	0.00110	0.40597				
ncsrT70_131_1_15_15	0.0	5,667	338	9,205	711.53	1.0e+00	0.43000	0.00103	0.43206				
moifr													
ncsrT70_131_1_15_1	0.0	5,667	338	9,205	711.53	1.0e-20	0.38521	0.00136	0.38793				
ncsrT70_131_1_15_2	0.0	5,667	338	9,205	711.53	1.0e-05	0.38339	0.00098	0.38536				
ncsrT70_131_1_15_3	0.0	5,667	338	9,205	711.53	1.0e-04	0.38633	0.00100	0.38834				
ncsrT70_131_1_15_4	0.0	5,667	338	9,205	711.53	1.0e-03	0.38417	0.00096	0.38610				
ncsrT70_131_1_15_5	0.0	5,667	338	9,205	711.53	1.0e-02	0.38613	0.00108	0.38829				
ncsrT70_131_1_15_6	0.0	5,667	338	9,205	711.53	1.0e-01	0.39026	0.00098	0.39222				
ncsrT70_131_1_15_8	0.0	5,667	338	9,205	711.53	3.0e-01	0.40187	0.00122	0.40430				
ncsrT70_131_1_15_15	0.0	5,667	338	9,205	711.53	1.0e+00	0.43000	0.00103	0.43206				
1.31 in. diameter content content in flooded containment vessel, array packaging model for CSI=0.0													
NCT													
no can spacers (np thickness = 0.0 in.)													
moifr													
nciaT70_131_1_1_3	0.0	5,667	338	0	0.00	1.0e-04	0.12954	0.00047	0.13048				
nciaT70_131_1_6_3	0.0	5,667	338	920	71.15	1.0e-04	0.15804	0.00057	0.15918				
nciaT70_131_1_7_3	0.0	5,667	338	1,841	142.31	1.0e-04	0.19290	0.00064	0.19417				
nciaT70_131_1_8_3	0.0	5,667	338	2,762	213.46	1.0e-04	0.22844	0.00085	0.23015				
nciaT70_131_1_9_3	0.0	5,667	338	3,682	284.61	1.0e-04	0.26752	0.00081	0.26914				

Table 6.9.6-20c. Results for 1.31 in. smaller diameter $UZrH_x$ content at 70.1 wt % ^{235}U in packaging calculation model

case name	np (in)	$UZrH_x$ (g)	^{235}U (g)	H_2O (g)	h/x	mocfr/ moifr	k_{eff}	σ	$k_{eff}+2\sigma$	case name	k_{eff}	σ	$k_{eff}+2\sigma$
nciaT70_131_1_10_3	0.0	5,667	338	4,602	355.77	1.0e-04	0.30500	0.00096	0.30692				
nciaT70_131_1_11_3	0.0	5,667	338	5,523	426.92	1.0e-04	0.33850	0.00107	0.34064				
nciaT70_131_1_12_3	0.0	5,667	338	6,443	498.07	1.0e-04	0.37139	0.00102	0.37342				
nciaT70_131_1_13_3	0.0	5,667	338	7,364	569.23	1.0e-04	0.40245	0.00098	0.40441				
nciaT70_131_1_14_3	0.0	5,667	338	8,284	640.38	1.0e-04	0.43010	0.00115	0.43241				
nciaT70_131_1_15_3	0.0	5,667	338	9,205	711.53	1.0e-04	0.45804	0.00122	0.46047				

Table 6.9.6-20d. Results for $UZrH_x$ content at 19.7 wt % ^{235}U in packaging calculation model

case name	np (in)	$UZrH_x$ (g)	^{235}U (g)	H_2O (g)	h/x	mocfr/ moifr	k_{eff}	σ	$k_{eff}+2\sigma$	case name	k_{eff}	σ	$k_{eff}+2\sigma$
homogenized content in flooded containment vessel, single package reflected [10 CFR 71.55(d)(2)]													
NCT													
no can spacers (np thickness = 0.0 in.)													
mocfr													
ncsrt55d2_1_1_15	0.0	10,400	921	0	0.00	1.0e+00	0.11370	0.00054	0.11477				
ncsrt55d2_1_6_15	0.0	10,400	921	900	25.50	1.0e+00	0.15074	0.00061	0.15196				
ncsrt55d2_1_7_15	0.0	10,400	921	1,800	51.00	1.0e+00	0.19298	0.00070	0.19439				
ncsrt55d2_1_8_15	0.0	10,400	921	2,700	76.50	1.0e+00	0.24182	0.00082	0.24346				
ncsrt55d2_1_9_15	0.0	10,400	921	3,599	102.00	1.0e+00	0.29424	0.00084	0.29591				
ncsrt55d2_1_10_15	0.0	10,400	921	4,499	127.50	1.0e+00	0.34858	0.00100	0.35059				
ncsrt55d2_1_11_15	0.0	10,400	921	5,399	153.00	1.0e+00	0.40341	0.00119	0.40579				
ncsrt55d2_1_12_15	0.0	10,400	921	6,299	178.50	1.0e+00	0.45802	0.00109	0.46020				

Table 6.9.6-20d. Results for $UZrH_x$ content at 19.7 wt % ^{235}U in packaging calculation model

case name	np (in)	$UZrH_x$ (g)	^{235}U (g)	H_2O (g)	h/x	mocfr/ moifr	k_{eff}	σ	$k_{eff}+2\sigma$	case name	k_{eff}	σ	$k_{eff}+2\sigma$
ncsrt55d2_1_13_15	0.0	10,400	921	7,199	204.00	1.0e+00	0.51163	0.00121	0.51404				
ncsrt55d2_1_14_15	0.0	10,400	921	8,098	229.51	1.0e+00	0.56264	0.00129	0.56521				
ncsrt55d2_1_15_15	0.0	10,400	921	8,998	255.01	1.0e+00	0.60824	0.00136	0.61095				
moifr													
ncsrt55d2_1_15_15	0.0	10,400	921	8,998	255.01	1.0e+00	0.60824	0.00136	0.61095				
ncsrt55d2_1_15_8	0.0	10,400	921	8,998	255.01	3.0e-01	0.55284	0.00122	0.55528				
ncsrt55d2_1_15_6	0.0	10,400	921	8,998	255.01	1.0e-01	0.53397	0.00114	0.53626				
ncsrt55d2_1_15_5	0.0	10,400	921	8,998	255.01	1.0e-02	0.52373	0.00115	0.52604				
ncsrt55d2_1_15_4	0.0	10,400	921	8,998	255.01	1.0e-03	0.52361	0.00124	0.52609				
ncsrt55d2_1_15_3	0.0	10,400	921	8,998	255.01	1.0e-04	0.52050	0.00116	0.52283				
ncsrt55d2_1_15_2	0.0	10,400	921	8,998	255.01	1.0e-05	0.52366	0.00123	0.52611				
ncsrt55d2_1_15_1	0.0	10,400	921	8,998	255.01	1.0e-20	0.52390	0.00120	0.52631				
with can spacers (np thickness = 1.4 in.)													
mocfr													
ncsrt55d2_2_1_15	1.4	10,400	921	0	0.00	1.0e+00	0.10877	0.00048	0.10972				
ncsrt55d2_2_6_15	1.4	10,400	921	839	23.76	1.0e+00	0.14519	0.00062	0.14643				
ncsrt55d2_2_7_15	1.4	10,400	921	1,677	47.52	1.0e+00	0.18564	0.00082	0.18729				
ncsrt55d2_2_8_15	1.4	10,400	921	2,515	71.29	1.0e+00	0.23269	0.00095	0.23459				
ncsrt55d2_2_9_15	1.4	10,400	921	3,354	95.05	1.0e+00	0.28305	0.00082	0.28469				
ncsrt55d2_2_10_15	1.4	10,400	921	4,192	118.81	1.0e+00	0.33734	0.00105	0.33944				
ncsrt55d2_2_11_15	1.4	10,400	921	5,031	142.57	1.0e+00	0.39111	0.00128	0.39367				
ncsrt55d2_2_12_15	1.4	10,400	921	5,869	166.33	1.0e+00	0.44324	0.00114	0.44553				

Table 6.9.6-20d. Results for $UZrH_x$ content at 19.7 wt % ^{235}U in packaging calculation model

case name	np (in)	$UZrH_x$ (g)	^{235}U (g)	H_2O (g)	h/x	mocfr/ moifr	k_{eff}	σ	$k_{eff}+2\sigma$	case name	k_{eff}	σ	$k_{eff}+2\sigma$
ncsrt55d2_2_13_15	1.4	10,400	921	6,708	190.09	1.0e+00	0.49696	0.00128	0.49951				
ncsrt55d2_2_14_15	1.4	10,400	921	7,546	213.86	1.0e+00	0.54756	0.00093	0.54942				
ncsrt55d2_2_15_15	1.4	10,400	921	8,385	237.62	1.0e+00	0.59538	0.00144	0.59825				
moifr													
ncsrt55d2_2_15_15	1.4	10,400	921	8,385	237.62	1.0e+00	0.59538	0.00144	0.59825				
ncsrt55d2_2_15_8	1.4	10,400	921	8,385	237.62	3.0e-01	0.53671	0.00112	0.53895				
ncsrt55d2_2_15_6	1.4	10,400	921	8,385	237.62	1.0e-01	0.52002	0.00107	0.52217				
ncsrt55d2_2_15_5	1.4	10,400	921	8,385	237.62	1.0e-02	0.50958	0.00123	0.51204				
ncsrt55d2_2_15_4	1.4	10,400	921	8,385	237.62	1.0e-03	0.50803	0.00111	0.51024				
ncsrt55d2_2_15_3	1.4	10,400	921	8,385	237.62	1.0e-04	0.50785	0.00116	0.51018				
ncsrt55d2_2_15_2	1.4	10,400	921	8,385	237.62	1.0e-05	0.50851	0.00117	0.51086				
ncsrt55d2_2_15_1	1.4	10,400	921	8,385	237.62	1.0e-20	0.50763	0.00113	0.50989				
homogenized content in flooded containment vessel, array packaging model for CSI=0.0 [10 CFR 71.55(d)(2)]													
NCT													
no can spacers (np thickness = 0.0 in.)													
moifr													
nciat55d2_1_1_3	0.0	10400	921	0	0.00	1.0e-04	0.13090	0.00039	0.13168				
nciat55d2_1_6_3	0.0	10400	921	900	25.50	1.0e-04	0.18600	0.00056	0.18713				
nciat55d2_1_7_3	0.0	10400	921	1,800	51.00	1.0e-04	0.24841	0.00078	0.24997				
nciat55d2_1_8_3	0.0	10400	921	2,700	76.50	1.0e-04	0.31679	0.00074	0.31826				
nciat55d2_1_9_3	0.0	10400	921	3,599	102.00	1.0e-04	0.38338	0.00097	0.38531				
nciat55d2_1_10_3	0.0	10400	921	4,499	127.50	1.0e-04	0.44808	0.00093	0.44993				
nciat55d2_1_11_3	0.0	10400	921	5,399	153.00	1.0e-04	0.51062	0.00096	0.51254				

Table 6.9.6-20d. Results for $UZrH_x$ content at 19.7 wt % ^{235}U in packaging calculation model

case name	np (in)	$UZrH_x$ (g)	^{235}U (g)	H_2O (g)	h/x	mocfr/ moifr	k_{eff}	σ	$k_{eff}+2\sigma$	case name	k_{eff}	σ	$k_{eff}+2\sigma$
nciat55d2_1_12_3	0.0	10400	921	6,299	178.50	1.0e-04	0.56869	0.00104	0.57076				
nciat55d2_1_13_3	0.0	10400	921	7,198	204.00	1.0e-04	0.62259	0.00112	0.62484				
nciat55d2_1_14_3	0.0	10400	921	8,098	229.51	1.0e-04	0.67077	0.00100	0.67276				
nciat55d2_1_15_3	0.0	10400	921	8,998	255.01	1.0e-04	0.71379	0.00131	0.71641				
with can spacers (np thickness = 1.4 in.)													
nciat55d2_02_1_3	1.4	10400	921	0	0.00	1.0e-04	0.12620	0.00039	0.12697				
nciat55d2_02_6_3	1.4	10400	921	838	23.76	1.0e-04	0.17224	0.00043	0.17310				
nciat55d2_02_7_3	1.4	10400	921	1,677	47.52	1.0e-04	0.22779	0.00057	0.22894				
nciat55d2_02_8_3	1.4	10400	921	2,515	71.29	1.0e-04	0.28723	0.00081	0.28884				
nciat55d2_02_9_3	1.4	10400	921	3,354	95.05	1.0e-04	0.34934	0.00079	0.35091				
nciat55d2_02_10_3	1.4	10400	921	4,192	118.81	1.0e-04	0.40899	0.00097	0.41094				
nciat55d2_02_11_3	1.4	10400	921	5,031	142.57	1.0e-04	0.46775	0.00101	0.46977				
nciat55d2_02_12_3	1.4	10400	921	5,869	166.33	1.0e-04	0.52454	0.00105	0.52664				
nciat55d2_02_13_3	1.4	10400	921	6,708	190.09	1.0e-04	0.57561	0.00105	0.57771				
nciat55d2_02_14_3	1.4	10400	921	7,546	213.86	1.0e-04	0.62437	0.00100	0.62637				
nciat55d2_02_15_3	1.4	10400	921	8,385	237.62	1.0e-04	0.66968	0.00118	0.67203				

Table 6.9.6-21. Results for solid HEU metal content for air transportation

case name	^{235}U (g)	CH_2 (g)	H_2O (g)	Kaolite (g)	htox	Rc (cm)	H_2O (g)	Kao (g)	Shell (g)	Rs (cm)	nlf	k_{eff}	σ	$k_{eff}+2\sigma$
compromised package, HEU in spherical configuration, 20.0 cm water reflector														
10,000g HEU														
atdmr_10_8	10,000	513	na	na	1.72	6.3828	na	na	na	na	0.0699	0.84749	0.00166	0.85080
atdmr_10_7	9,500	513	na	na	1.81	6.3821	na	na	na	na	0.0700	0.83119	0.00116	0.83352

Table 6.9.6-21. Results for solid HEU metal content for air transportation

case name	^{235}U (g)	CH_2 (g)	H_2O (g)	Kaolite (g)	htox	Rc (cm)	H_2O (g)	Kao (g)	Shell (g)	Rs (cm)	nlf	k_{eff}	σ	$k_{eff} + 2\sigma$
atdmr_10_6	9,000	513	na	na	1.91	6.3814	na	na	na	na	0.0704	0.81788	0.00124	0.82037
atdmr_10_5	8,000	513	na	na	2.15	6.3801	na	na	na	na	0.0703	0.79457	0.00108	0.79673
atdmr_10_4	7,000	513	na	na	2.46	6.3788	na	na	na	na	0.0708	0.76800	0.00105	0.77010
atdmr_10_3	6,000	513	na	na	2.87	6.3775	na	na	na	na	0.0708	0.73829	0.00119	0.74067
atdmr_10_2	4,000	513	na	na	4.30	6.3749	na	na	na	na	0.0707	0.67494	0.00115	0.67723
atdmr_10_1	1,900	513	na	na	9.06	6.3721	na	na	na	na	0.0714	0.58800	0.00115	0.59030
9,000g HEU														
atdmr_9_8	9,000	513	na	na	1.91	6.2772	na	na	na	na	0.0709	0.82760	0.00126	0.83012
atdmr_9_7	8,550	513	na	na	2.01	6.2766	na	na	na	na	0.0706	0.81397	0.00109	0.81615
atdmr_9_6	8,100	513	na	na	2.12	6.2760	na	na	na	na	0.0709	0.80283	0.00125	0.80533
atdmr_9_5	7,200	513	na	na	2.39	6.2747	na	na	na	na	0.0713	0.77712	0.00131	0.77973
atdmr_9_4	6,300	513	na	na	2.73	6.2735	na	na	na	na	0.0713	0.75186	0.00109	0.75403
atdmr_9_3	5,400	513	na	na	3.19	6.2723	na	na	na	na	0.0717	0.72734	0.00146	0.73025
atdmr_9_2	3,600	513	na	na	4.78	6.2698	na	na	na	na	0.0716	0.66431	0.00106	0.66642
atdmr_9_1	1,710	513	na	na	10.06	6.2673	na	na	na	na	0.0722	0.58032	0.00113	0.58259
8,000g HEU														
atdmr_8_7	7,600	513	na	na	2.26	6.1674	na	na	na	na	0.0715	0.79619	0.00117	0.79853
atdmr_8_6	7,200	513	na	na	2.39	6.1668	na	na	na	na	0.0727	0.78301	0.00116	0.78533
atdmr_8_5	6,400	513	na	na	2.69	6.1657	na	na	na	na	0.0719	0.75965	0.00114	0.76193
atdmr_8_4	5,600	513	na	na	3.07	6.1646	na	na	na	na	0.0716	0.73554	0.00108	0.73771
atdmr_8_3	4,800	513	na	na	3.58	6.1634	na	na	na	na	0.0726	0.70989	0.00097	0.71182
atdmr_8_2	3,200	513	na	na	5.38	6.1612	na	na	na	na	0.0728	0.65175	0.00102	0.65379
atdmr_8_1	1,520	513	na	na	11.32	6.1588	na	na	na	na	0.0733	0.57379	0.00106	0.57592

Table 6.9.6-21. Results for solid HEU metal content for air transportation

case name	^{235}U (g)	CH_2 (g)	H_2O (g)	Kaolite (g)	htox	Rc (cm)	H_2O (g)	Kao (g)	Shell (g)	Rs (cm)	nlf	k_{eff}	σ	$k_{eff} + 2\sigma$
7,000g HEU														
atdmr_7_8	7,000	513	na	na	2.46	6.0547	na	na	na	na	0.0727	0.78948	0.00115	0.79178
atdmr_7_7	6,650	513	na	na	2.59	6.0541	na	na	na	na	0.0729	0.77766	0.00132	0.78030
atdmr_7_6	6,300	513	na	na	2.73	6.0536	na	na	na	na	0.0730	0.76315	0.00123	0.76560
atdmr_7_5	5,600	513	na	na	3.07	6.0526	na	na	na	na	0.0732	0.74249	0.00125	0.74499
atdmr_7_4	4,900	513	na	na	3.51	6.0516	na	na	na	na	0.0727	0.72132	0.00116	0.72365
atdmr_7_3	4,200	513	na	na	4.10	6.0506	na	na	na	na	0.0741	0.69486	0.00105	0.69696
atdmr_7_2	2,800	513	na	na	6.15	6.0485	na	na	na	na	0.0735	0.64123	0.00116	0.64355
atdmr_7_1	1,330	513	na	na	12.94	6.0464	na	na	na	na	0.0737	0.56794	0.00130	0.57053
compromised package, HEU in spherical configuration, Kaolite shell, 20.0 cm water reflector														
7,000g HEU 100% enrichment														
atdmsr_7_8_11	7,000	513	na	na	2.46	6.0547	na	na	66,133.1	13.0264	0.0300	0.76978	0.00129	0.77236
atdmsr_7_8_10	7,000	513	na	na	2.46	6.0547	na	na	59,519.8	12.6235	0.0314	0.76732	0.00118	0.76967
atdmsr_7_8_9	7,000	513	na	na	2.46	6.0547	na	na	52,906.5	12.1930	0.0330	0.76002	0.00125	0.76252
atdmsr_7_8_8	7,000	513	na	na	2.46	6.0547	na	na	46,293.2	11.7298	0.0345	0.75671	0.00121	0.75913
atdmsr_7_8_7	7,000	513	na	na	2.46	6.0547	na	na	39,679.9	11.2268	0.0374	0.75221	0.00109	0.75438
atdmsr_7_8_6	7,000	513	na	na	2.46	6.0547	na	na	33,066.6	10.6742	0.0395	0.75004	0.00120	0.75245
atdmsr_7_8_5	7,000	513	na	na	2.46	6.0547	na	na	26,453.3	10.0575	0.0423	0.74240	0.00101	0.74442
atdmsr_7_8_4	7,000	513	na	na	2.46	6.0547	na	na	19,839.9	9.3542	0.0466	0.73769	0.00151	0.74072
atdmsr_7_8_3	7,000	513	na	na	2.46	6.0547	na	na	13,226.6	8.5255	0.0516	0.73211	0.00120	0.73452
atdmsr_7_8_2	7,000	513	na	na	2.46	6.0547	na	na	6,613.3	7.4937	0.0589	0.73646	0.00124	0.73894
atdmsr_7_8_1	7,000	513	na	na	2.46	6.0547	na	na	0.0	6.0548	0.0728	0.79093	0.00117	0.79327
7,000g HEU 95% enrichment														
atdmsr_7_7_11	6,650	513	na	na	2.59	6.0541	na	na	66,133.1	13.0263	0.0295	0.75467	0.00115	0.75698
atdmsr_7_7_10	6,650	513	na	na	2.59	6.0541	na	na	59,519.8	12.6234	0.0312	0.75071	0.00123	0.75317

Table 6.9.6-21. Results for solid HEU metal content for air transportation

case name	^{235}U (g)	CH_2 (g)	H_2O (g)	Kaolite (g)	htox	Rc (cm)	H_2O (g)	Kao (g)	Shell (g)	Rs (cm)	nlf	k_{eff}	σ	$k_{eff} + 2\sigma$
atdmsr_7_7_9	6,650	513	na	na	2.59	6.0541	na	na	52,906.5	12.1929	0.0328	0.74594	0.00128	0.74850
atdmsr_7_7_8	6,650	513	na	na	2.59	6.0541	na	na	46,293.2	11.7297	0.0348	0.74333	0.00108	0.74549
atdmsr_7_7_7	6,650	513	na	na	2.59	6.0541	na	na	39,679.9	11.2267	0.0368	0.73698	0.00117	0.73932
atdmsr_7_7_6	6,650	513	na	na	2.59	6.0541	na	na	33,066.6	10.6740	0.0397	0.73239	0.00125	0.73489
atdmsr_7_7_5	6,650	513	na	na	2.59	6.0541	na	na	26,453.3	10.0573	0.0428	0.72809	0.00142	0.73093
atdmsr_7_7_4	6,650	513	na	na	2.59	6.0541	na	na	19,839.9	9.3540	0.0461	0.72160	0.00110	0.72381
atdmsr_7_7_3	6,650	513	na	na	2.59	6.0541	na	na	13,226.6	8.5252	0.0514	0.71946	0.00121	0.72189
atdmsr_7_7_2	6,650	513	na	na	2.59	6.0541	na	na	6,613.3	7.4934	0.0596	0.72377	0.00105	0.72587
atdmsr_7_7_1	6,650	513	na	na	2.59	6.0541	na	na	0.0	6.0542	0.0727	0.77941	0.00138	0.78218
7,000g HEU 90% enrichment														
atdmsr_7_6_11	6,300	513	na	na	2.73	6.0536	na	na	66,133.1	13.0262	0.0298	0.74002	0.00123	0.74248
atdmsr_7_6_10	6,300	513	na	na	2.73	6.0536	na	na	59,519.8	12.6233	0.0309	0.73640	0.00130	0.73899
atdmsr_7_6_9	6,300	513	na	na	2.73	6.0536	na	na	52,906.5	12.1928	0.0326	0.73341	0.00130	0.73601
atdmsr_7_6_8	6,300	513	na	na	2.73	6.0536	na	na	46,293.2	11.7296	0.0350	0.72745	0.00117	0.72978
atdmsr_7_6_7	6,300	513	na	na	2.73	6.0536	na	na	39,679.9	11.2265	0.0371	0.72397	0.00125	0.72647
atdmsr_7_6_6	6,300	513	na	na	2.73	6.0536	na	na	33,066.6	10.6739	0.0396	0.71997	0.00111	0.72219
atdmsr_7_6_5	6,300	513	na	na	2.73	6.0536	na	na	26,453.3	10.0572	0.0422	0.71532	0.00112	0.71755
atdmsr_7_6_4	6,300	513	na	na	2.73	6.0536	na	na	19,839.9	9.3538	0.0466	0.70916	0.00125	0.71166
atdmsr_7_6_3	6,300	513	na	na	2.73	6.0536	na	na	13,226.6	8.5250	0.0518	0.70456	0.00108	0.70672
atdmsr_7_6_2	6,300	513	na	na	2.73	6.0536	na	na	6,613.3	7.4931	0.0590	0.71101	0.00110	0.71322
atdmsr_7_6_1	6,300	513	na	na	2.73	6.0536	na	na	0.0	6.0537	0.0735	0.76667	0.00126	0.76920
7,000g HEU 80% enrichment														
atdmsr_7_5_11	5,600	513	na	na	3.07	6.0526	na	na	66,133.1	13.0260	0.0297	0.71137	0.00112	0.71362
atdmsr_7_5_10	5,600	513	na	na	3.07	6.0526	na	na	59,519.8	12.6230	0.0314	0.70938	0.00141	0.71220
atdmsr_7_5_9	5,600	513	na	na	3.07	6.0526	na	na	52,906.5	12.1925	0.0329	0.70515	0.00096	0.70706

Table 6.9.6-21. Results for solid HEU metal content for air transportation

case name	^{235}U (g)	CH_2 (g)	H_2O (g)	Kaolite (g)	htox	Rc (cm)	H_2O (g)	Kao (g)	Shell (g)	Rs (cm)	nlf	k_{eff}	σ	$k_{eff} + 2\sigma$
atdmsr_7_5_8	5,600	513	na	na	3.07	6.0526	na	na	46,293.2	11.7293	0.0346	0.70045	0.00120	0.70285
atdmsr_7_5_7	5,600	513	na	na	3.07	6.0526	na	na	39,679.9	11.2262	0.0366	0.69582	0.00122	0.69826
atdmsr_7_5_6	5,600	513	na	na	3.07	6.0526	na	na	33,066.6	10.6736	0.0396	0.69115	0.00124	0.69363
atdmsr_7_5_5	5,600	513	na	na	3.07	6.0526	na	na	26,453.3	10.0568	0.0428	0.68561	0.00118	0.68797
atdmsr_7_5_4	5,600	513	na	na	3.07	6.0526	na	na	19,839.9	9.3534	0.0463	0.68277	0.00124	0.68525
atdmsr_7_5_3	5,600	513	na	na	3.07	6.0526	na	na	13,226.6	8.5244	0.0515	0.67737	0.00102	0.67940
atdmsr_7_5_2	5,600	513	na	na	3.07	6.0526	na	na	6,613.3	7.4924	0.0593	0.68540	0.00103	0.68746
atdmsr_7_5_1	5,600	513	na	na	3.07	6.0526	na	na	0.0	6.0527	0.0729	0.74261	0.00120	0.74501
7,000g HEU70% enrichment														
atdmsr_7_4_11	4,900	513	na	na	3.51	6.0516	na	na	66,133.1	13.0258	0.0300	0.68306	0.00121	0.68547
atdmsr_7_4_10	4,900	513	na	na	3.51	6.0516	na	na	59,519.8	12.6228	0.0312	0.67927	0.00127	0.68181
atdmsr_7_4_9	4,900	513	na	na	3.51	6.0516	na	na	52,906.5	12.1923	0.0328	0.67583	0.00137	0.67857
atdmsr_7_4_8	4,900	513	na	na	3.51	6.0516	na	na	46,293.2	11.7290	0.0349	0.67138	0.00121	0.67380
atdmsr_7_4_7	4,900	513	na	na	3.51	6.0516	na	na	39,679.9	11.2259	0.0369	0.66709	0.00108	0.66925
atdmsr_7_4_6	4,900	513	na	na	3.51	6.0516	na	na	33,066.6	10.6732	0.0399	0.66244	0.00101	0.66446
atdmsr_7_4_5	4,900	513	na	na	3.51	6.0516	na	na	26,453.3	10.0564	0.0431	0.65826	0.00111	0.66048
atdmsr_7_4_4	4,900	513	na	na	3.51	6.0516	na	na	19,839.9	9.3530	0.0465	0.65222	0.00119	0.65460
atdmsr_7_4_3	4,900	513	na	na	3.51	6.0516	na	na	13,226.6	8.5239	0.0518	0.65245	0.00126	0.65497
atdmsr_7_4_2	4,900	513	na	na	3.51	6.0516	na	na	6,613.3	7.4917	0.0599	0.65772	0.00118	0.66008
atdmsr_7_4_1	4,900	513	na	na	3.51	6.0516	na	na	0.0	6.0517	0.0733	0.72043	0.00123	0.72290
7,000g HEU 60% enrichment														
atdmsr_7_3_11	4,200	513	na	na	4.10	6.0506	na	na	66,133.1	13.0256	0.0299	0.65025	0.00135	0.65295
atdmsr_7_3_10	4,200	513	na	na	4.10	6.0506	na	na	59,519.8	12.6226	0.0314	0.64822	0.00112	0.65045
atdmsr_7_3_9	4,200	513	na	na	4.10	6.0506	na	na	52,906.5	12.1920	0.0330	0.64480	0.00112	0.64705
atdmsr_7_3_8	4,200	513	na	na	4.10	6.0506	na	na	46,293.2	11.7288	0.0351	0.63950	0.00103	0.64156

Table 6.9.6-21. Results for solid HEU metal content for air transportation

case name	^{235}U (g)	CH_2 (g)	H_2O (g)	Kaolite (g)	htox	Rc (cm)	H_2O (g)	Kao (g)	Shell (g)	Rs (cm)	nlf	k_{eff}	σ	$k_{eff} + 2\sigma$
atdmsr_7_3_7	4,200	513	na	na	4.10	6.0506	na	na	39,679.9	11.2257	0.0371	0.63712	0.00119	0.63950
atdmsr_7_3_6	4,200	513	na	na	4.10	6.0506	na	na	33,066.6	10.6729	0.0397	0.63245	0.00093	0.63431
atdmsr_7_3_5	4,200	513	na	na	4.10	6.0506	na	na	26,453.3	10.0561	0.0428	0.62613	0.00113	0.62838
atdmsr_7_3_4	4,200	513	na	na	4.10	6.0506	na	na	19,839.9	9.3525	0.0468	0.62494	0.00105	0.62705
atdmsr_7_3_3	4,200	513	na	na	4.10	6.0506	na	na	13,226.6	8.5234	0.0517	0.61900	0.00116	0.62132
atdmsr_7_3_2	4,200	513	na	na	4.10	6.0506	na	na	6,613.3	7.4911	0.0595	0.63166	0.00116	0.63399
atdmsr_7_3_1	4,200	513	na	na	4.10	6.0506	na	na	0.0	6.0507	0.0734	0.69589	0.00112	0.69813
7,000g HEU 40% enrichment														
atdmsr_7_2_11	2,800	513	na	na	6.15	6.0485	na	na	66,133.1	13.0251	0.0303	0.57913	0.00106	0.58126
atdmsr_7_2_10	2,800	513	na	na	6.15	6.0485	na	na	59,519.8	12.6221	0.0311	0.57855	0.00114	0.58083
atdmsr_7_2_9	2,800	513	na	na	6.15	6.0485	na	na	52,906.5	12.1915	0.0332	0.57213	0.00121	0.57455
atdmsr_7_2_8	2,800	513	na	na	6.15	6.0485	na	na	46,293.2	11.7282	0.0350	0.56971	0.00124	0.57219
atdmsr_7_2_7	2,800	513	na	na	6.15	6.0485	na	na	39,679.9	11.2251	0.0372	0.56672	0.00109	0.56890
atdmsr_7_2_6	2,800	513	na	na	6.15	6.0485	na	na	33,066.6	10.6722	0.0391	0.56156	0.00107	0.56371
atdmsr_7_2_5	2,800	513	na	na	6.15	6.0485	na	na	26,453.3	10.0553	0.0424	0.55753	0.00109	0.55972
atdmsr_7_2_4	2,800	513	na	na	6.15	6.0485	na	na	19,839.9	9.3517	0.0467	0.55519	0.00116	0.55752
atdmsr_7_2_3	2,800	513	na	na	6.15	6.0485	na	na	13,226.6	8.5224	0.0521	0.55309	0.00103	0.55515
atdmsr_7_2_2	2,800	513	na	na	6.15	6.0485	na	na	6,613.3	7.4897	0.0592	0.56497	0.00103	0.56704
atdmsr_7_2_1	2,800	513	na	na	6.15	6.0485	na	na	0.0	6.0486	0.0738	0.64051	0.00108	0.64267
7,000g HEU 20% enrichment														
atdmsr_7_1_11	1,330	513	na	na	12.94	6.0464	na	na	66,133.1	13.0247	0.0300	0.47937	0.00107	0.48151
atdmsr_7_1_10	1,330	513	na	na	12.94	6.0464	na	na	59,519.8	12.6216	0.0315	0.47895	0.00120	0.48136
atdmsr_7_1_9	1,330	513	na	na	12.94	6.0464	na	na	52,906.5	12.1910	0.0330	0.47468	0.00117	0.47702
atdmsr_7_1_8	1,330	513	na	na	12.94	6.0464	na	na	46,293.2	11.7276	0.0349	0.47179	0.00102	0.47383
atdmsr_7_1_7	1,330	513	na	na	12.94	6.0464	na	na	39,679.9	11.2244	0.0372	0.46614	0.00113	0.46841

Table 6.9.6-21. Results for solid HEU metal content for air transportation

case name	^{235}U (g)	CH_2 (g)	H_2O (g)	Kaolite (g)	htox	Rc (cm)	H_2O (g)	Kao (g)	Shell (g)	Rs (cm)	nlf	k_{eff}	σ	$k_{eff} + 2\sigma$
atdmsr_7_1_6	1,330	513	na	na	12.94	6.0464	na	na	33,066.6	10.6715	0.0393	0.46445	0.00093	0.46632
atdmsr_7_1_5	1,330	513	na	na	12.94	6.0464	na	na	26,453.3	10.0545	0.0430	0.46287	0.00096	0.46480
atdmsr_7_1_4	1,330	513	na	na	12.94	6.0464	na	na	19,839.9	9.3508	0.0469	0.45842	0.00094	0.46031
atdmsr_7_1_3	1,330	513	na	na	12.94	6.0464	na	na	13,226.6	8.5213	0.0525	0.45781	0.00095	0.45971
atdmsr_7_1_2	1,330	513	na	na	12.94	6.0464	na	na	6,613.3	7.4883	0.0602	0.47487	0.00114	0.47715
atdmsr_7_1_1	1,330	513	na	na	12.94	6.0464	na	na	0.0	6.0465	0.0733	0.56625	0.00104	0.56833
compromised package, HEU in spherical configuration, none-to-water saturated Kaolite shell, 20.0 cm water reflector														
7,000g HEU 100% enrichment														
atdmkr_7_8_11	7,000	513	na	na	2.46	6.0547	76,819.4	51,214.9	128,034.0	31.0814	0.0057	0.74873	0.00152	0.75178
atdmkr_7_8_10	7,000	513	na	na	2.46	6.0547	69,137.2	46,093.4	115,230.6	30.0170	0.0065	0.74821	0.00123	0.75067
atdmkr_7_8_9	7,000	513	na	na	2.46	6.0547	61,455.3	40,971.9	102,427.2	28.8712	0.0074	0.74665	0.00112	0.74889
atdmkr_7_8_8	7,000	513	na	na	2.46	6.0547	53,773.4	35,850.4	89,623.8	27.6264	0.0083	0.74610	0.00123	0.74856
atdmkr_7_8_7	7,000	513	na	na	2.46	6.0547	46,091.5	30,728.9	76,820.4	26.2581	0.0094	0.74918	0.00119	0.75155
atdmkr_7_8_6	7,000	513	na	na	2.46	6.0547	38,409.6	25,607.5	64,017.0	24.7300	0.0110	0.74664	0.00118	0.74901
atdmkr_7_8_5	7,000	513	na	na	2.46	6.0547	30,727.6	20,486.0	51,213.6	22.9853	0.0128	0.74760	0.00134	0.75027
atdmkr_7_8_4	7,000	513	na	na	2.46	6.0547	23,045.7	15,364.5	38,410.2	20.9259	0.0161	0.74585	0.00118	0.74821
atdmkr_7_8_3	7,000	513	na	na	2.46	6.0547	15,363.8	10,243.0	25,606.8	18.3540	0.0206	0.74498	0.00117	0.74733
atdmkr_7_8_2	7,000	513	na	na	2.46	6.0547	7,681.9	5,121.5	12,803.4	14.7399	0.0296	0.74816	0.00123	0.75063
atdmkr_7_8_1	7,000	513	na	na	2.46	6.0547	0.0	0.0	0.0	6.0548	0.0730	0.78994	0.00131	0.79257
7,000g HEU 95% enrichment														
atdmkr_7_7_11	6,650	513	na	na	2.59	6.0541	76,819.4	51,214.9	128,034.0	31.0814	0.0058	0.73331	0.00141	0.73613
atdmkr_7_7_10	6,650	513	na	na	2.59	6.0541	69,137.2	46,093.4	115,230.6	30.0170	0.0064	0.73430	0.00130	0.73690
atdmkr_7_7_9	6,650	513	na	na	2.59	6.0541	61,455.3	40,971.9	102,427.2	28.8712	0.0073	0.73397	0.00103	0.73603
atdmkr_7_7_8	6,650	513	na	na	2.59	6.0541	53,773.4	35,850.4	89,623.8	27.6264	0.0081	0.73295	0.00123	0.73541
atdmkr_7_7_7	6,650	513	na	na	2.59	6.0541	46,091.5	30,728.9	76,820.4	26.2581	0.0094	0.73168	0.00112	0.73392

Table 6.9.6-21. Results for solid HEU metal content for air transportation

case name	^{235}U (g)	CH_2 (g)	H_2O (g)	Kaolite (g)	htox	Rc (cm)	H_2O (g)	Kao (g)	Shell (g)	Rs (cm)	nlf	k_{eff}	σ	$k_{eff} + 2\sigma$
atdmkr_7_7_6	6,650	513	na	na	2.59	6.0541	38,409.6	25,607.5	64,017.0	24.7300	0.0110	0.73221	0.00132	0.73484
atdmkr_7_7_5	6,650	513	na	na	2.59	6.0541	30,727.6	20,486.0	51,213.6	22.9853	0.0130	0.73422	0.00121	0.73664
atdmkr_7_7_4	6,650	513	na	na	2.59	6.0541	23,045.7	15,364.5	38,410.2	20.9259	0.0159	0.73389	0.00107	0.73604
atdmkr_7_7_3	6,650	513	na	na	2.59	6.0541	15,363.8	10,243.0	25,606.8	18.3539	0.0208	0.73441	0.00117	0.73675
atdmkr_7_7_2	6,650	513	na	na	2.59	6.0541	7,681.9	5,121.5	12,803.4	14.7398	0.0298	0.73565	0.00118	0.73801
atdmkr_7_7_1	6,650	513	na	na	2.59	6.0541	0.0	0.0	0.0	6.0542	0.0729	0.77722	0.00126	0.77975
7,000g HEU 90% enrichment														
atdmkr_7_6_11	6,300	513	na	na	2.73	6.0536	76,819.4	51,214.9	128,034.0	31.0814	0.0059	0.72011	0.00123	0.72257
atdmkr_7_6_10	6,300	513	na	na	2.73	6.0536	69,137.2	46,093.4	115,230.6	30.0169	0.0066	0.72046	0.00133	0.72312
atdmkr_7_6_9	6,300	513	na	na	2.73	6.0536	61,455.3	40,971.9	102,427.2	28.8711	0.0074	0.72075	0.00115	0.72306
atdmkr_7_6_8	6,300	513	na	na	2.73	6.0536	53,773.4	35,850.4	89,623.8	27.6264	0.0081	0.72144	0.00139	0.72422
atdmkr_7_6_7	6,300	513	na	na	2.73	6.0536	46,091.5	30,728.9	76,820.4	26.2580	0.0095	0.72118	0.00124	0.72366
atdmkr_7_6_6	6,300	513	na	na	2.73	6.0536	38,409.6	25,607.5	64,017.0	24.7299	0.0109	0.71958	0.00123	0.72204
atdmkr_7_6_5	6,300	513	na	na	2.73	6.0536	30,727.6	20,486.0	51,213.6	22.9853	0.0130	0.72335	0.00122	0.72580
atdmkr_7_6_4	6,300	513	na	na	2.73	6.0536	23,045.7	15,364.5	38,410.2	20.9258	0.0159	0.72261	0.00128	0.72517
atdmkr_7_6_3	6,300	513	na	na	2.73	6.0536	15,363.8	10,243.0	25,606.8	18.3539	0.0211	0.71961	0.00116	0.72192
atdmkr_7_6_2	6,300	513	na	na	2.73	6.0536	7,681.9	5,121.5	12,803.4	14.7397	0.0300	0.72437	0.00112	0.72661
atdmkr_7_6_1	6,300	513	na	na	2.73	6.0536	0.0	0.0	0.0	6.0537	0.0727	0.76352	0.00123	0.76598
7,000g HEU 80% enrichment														
atdmkr_7_5_11	5,600	513	na	na	3.07	6.0526	76,819.4	51,214.9	128,034.0	31.0813	0.0060	0.69823	0.00124	0.70071
atdmkr_7_5_10	5,600	513	na	na	3.07	6.0526	69,137.2	46,093.4	115,230.6	30.0169	0.0065	0.69888	0.00124	0.70137
atdmkr_7_5_9	5,600	513	na	na	3.07	6.0526	61,455.3	40,971.9	102,427.2	28.8711	0.0073	0.69842	0.00148	0.70138
atdmkr_7_5_8	5,600	513	na	na	3.07	6.0526	53,773.4	35,850.4	89,623.8	27.6263	0.0081	0.70030	0.00109	0.70248
atdmkr_7_5_7	5,600	513	na	na	3.07	6.0526	46,091.5	30,728.9	76,820.4	26.2580	0.0092	0.70044	0.00126	0.70297
atdmkr_7_5_6	5,600	513	na	na	3.07	6.0526	38,409.6	25,607.5	64,017.0	24.7299	0.0108	0.69703	0.00110	0.69924

Table 6.9.6-21. Results for solid HEU metal content for air transportation

case name	^{235}U (g)	CH_2 (g)	H_2O (g)	Kaolite (g)	htox	Rc (cm)	H_2O (g)	Kao (g)	Shell (g)	Rs (cm)	nlf	k_{eff}	σ	$k_{eff} + 2\sigma$
atdmkr_7_5_5	5,600	513	na	na	3.07	6.0526	30,727.6	20,486.0	51,213.6	22.9852	0.0127	0.69957	0.00122	0.70202
atdmkr_7_5_4	5,600	513	na	na	3.07	6.0526	23,045.7	15,364.5	38,410.2	20.9257	0.0159	0.69622	0.00108	0.69838
atdmkr_7_5_3	5,600	513	na	na	3.07	6.0526	15,363.8	10,243.0	25,606.8	18.3538	0.0203	0.69848	0.00117	0.70081
atdmkr_7_5_2	5,600	513	na	na	3.07	6.0526	7,681.9	5,121.5	12,803.4	14.7395	0.0297	0.69932	0.00130	0.70193
atdmkr_7_5_1	5,600	513	na	na	3.07	6.0526	0.0	0.0	0.0	6.0527	0.0732	0.74467	0.00118	0.74704
7,000g HEU 70% enrichment														
atdmkr_7_4_11	4,900	513	na	na	3.51	6.0516	76,819.4	51,214.9	128,034.0	31.0813	0.0060	0.67338	0.00112	0.67561
atdmkr_7_4_10	4,900	513	na	na	3.51	6.0516	69,137.2	46,093.4	115,230.6	30.0169	0.0066	0.67336	0.00119	0.67574
atdmkr_7_4_9	4,900	513	na	na	3.51	6.0516	61,455.3	40,971.9	102,427.2	28.8711	0.0073	0.67359	0.00118	0.67595
atdmkr_7_4_8	4,900	513	na	na	3.51	6.0516	53,773.4	35,850.4	89,623.8	27.6263	0.0082	0.67522	0.00122	0.67767
atdmkr_7_4_7	4,900	513	na	na	3.51	6.0516	46,091.5	30,728.9	76,820.4	26.2579	0.0095	0.67169	0.00110	0.67389
atdmkr_7_4_6	4,900	513	na	na	3.51	6.0516	38,409.6	25,607.5	64,017.0	24.7298	0.0110	0.67452	0.00113	0.67679
atdmkr_7_4_5	4,900	513	na	na	3.51	6.0516	30,727.6	20,486.0	51,213.6	22.9851	0.0129	0.67401	0.00133	0.67667
atdmkr_7_4_4	4,900	513	na	na	3.51	6.0516	23,045.7	15,364.5	38,410.2	20.9256	0.0159	0.67488	0.00118	0.67725
atdmkr_7_4_3	4,900	513	na	na	3.51	6.0516	15,363.8	10,243.0	25,606.8	18.3536	0.0207	0.67501	0.00120	0.67742
atdmkr_7_4_2	4,900	513	na	na	3.51	6.0516	7,681.9	5,121.5	12,803.4	14.7393	0.0299	0.67480	0.00129	0.67737
atdmkr_7_4_1	4,900	513	na	na	3.51	6.0516	0.0	0.0	0.0	6.0517	0.0725	0.72119	0.00137	0.72393
7,000g HEU 60% enrichment														
atdmkr_7_3_11	4,200	513	na	na	4.10	6.0506	76,819.4	51,214.9	128,034.0	31.0813	0.0058	0.64845	0.00127	0.65099
atdmkr_7_3_10	4,200	513	na	na	4.10	6.0506	69,137.2	46,093.4	115,230.6	30.0168	0.0064	0.64981	0.00121	0.65224
atdmkr_7_3_9	4,200	513	na	na	4.10	6.0506	61,455.3	40,971.9	102,427.2	28.8710	0.0073	0.64800	0.00123	0.65045
atdmkr_7_3_8	4,200	513	na	na	4.10	6.0506	53,773.4	35,850.4	89,623.8	27.6262	0.0084	0.64931	0.00113	0.65157
atdmkr_7_3_7	4,200	513	na	na	4.10	6.0506	46,091.5	30,728.9	76,820.4	26.2579	0.0094	0.65002	0.00105	0.65213
atdmkr_7_3_6	4,200	513	na	na	4.10	6.0506	38,409.6	25,607.5	64,017.0	24.7297	0.0109	0.64947	0.00105	0.65157
atdmkr_7_3_5	4,200	513	na	na	4.10	6.0506	30,727.6	20,486.0	51,213.6	22.9851	0.0131	0.64780	0.00128	0.65036

Table 6.9.6-21. Results for solid HEU metal content for air transportation

case name	^{235}U (g)	CH_2 (g)	H_2O (g)	Kaolite (g)	htox	Rc (cm)	H_2O (g)	Kao (g)	Shell (g)	Rs (cm)	nlf	k_{eff}	σ	$k_{eff} + 2\sigma$
atdmkr_7_3_4	4,200	513	na	na	4.10	6.0506	23,045.7	15,364.5	38,410.2	20.9256	0.0161	0.64888	0.00112	0.65112
atdmkr_7_3_3	4,200	513	na	na	4.10	6.0506	15,363.8	10,243.0	25,606.8	18.3535	0.0207	0.65026	0.00104	0.65233
atdmkr_7_3_2	4,200	513	na	na	4.10	6.0506	7,681.9	5,121.5	12,803.4	14.7392	0.0298	0.64866	0.00107	0.65081
atdmkr_7_3_1	4,200	513	na	na	4.10	6.0506	0.0	0.0	0.0	6.0507	0.0733	0.69563	0.00132	0.69828
7,000g HEU 40% enrichment														
atdmkr_7_2_11	2,800	513	na	na	6.15	6.0485	76,819.4	51,214.9	128,034.0	31.0812	0.0059	0.59232	0.00100	0.59432
atdmkr_7_2_10	2,800	513	na	na	6.15	6.0485	69,137.2	46,093.4	115,230.6	30.0167	0.0064	0.59431	0.00098	0.59626
atdmkr_7_2_9	2,800	513	na	na	6.15	6.0485	61,455.3	40,971.9	102,427.2	28.8709	0.0072	0.59123	0.00117	0.59357
atdmkr_7_2_8	2,800	513	na	na	6.15	6.0485	53,773.4	35,850.4	89,623.8	27.6261	0.0082	0.59177	0.00110	0.59398
atdmkr_7_2_7	2,800	513	na	na	6.15	6.0485	46,091.5	30,728.9	76,820.4	26.2578	0.0096	0.59056	0.00120	0.59296
atdmkr_7_2_6	2,800	513	na	na	6.15	6.0485	38,409.6	25,607.5	64,017.0	24.7296	0.0110	0.59052	0.00121	0.59294
atdmkr_7_2_5	2,800	513	na	na	6.15	6.0485	30,727.6	20,486.0	51,213.6	22.9849	0.0133	0.59140	0.00116	0.59372
atdmkr_7_2_4	2,800	513	na	na	6.15	6.0485	23,045.7	15,364.5	38,410.2	20.9254	0.0160	0.58984	0.00115	0.59215
atdmkr_7_2_3	2,800	513	na	na	6.15	6.0485	15,363.8	10,243.0	25,606.8	18.3533	0.0207	0.59072	0.00102	0.59275
atdmkr_7_2_2	2,800	513	na	na	6.15	6.0485	7,681.9	5,121.5	12,803.4	14.7388	0.0304	0.59025	0.00114	0.59254
atdmkr_7_2_1	2,800	513	na	na	6.15	6.0485	0.0	0.0	0.0	6.0486	0.0732	0.64138	0.00114	0.64366
7,000g HEU 20% enrichment														
atdmkr_7_1_11	1,330	513	na	na	12.94	6.0464	76,819.4	51,214.9	128,034.0	31.0811	0.0058	0.51279	0.00108	0.51495
atdmkr_7_1_10	1,330	513	na	na	12.94	6.0464	69,137.2	46,093.4	115,230.6	30.0167	0.0066	0.51316	0.00104	0.51523
atdmkr_7_1_9	1,330	513	na	na	12.94	6.0464	61,455.3	40,971.9	102,427.2	28.8708	0.0074	0.51271	0.00095	0.51460
atdmkr_7_1_8	1,330	513	na	na	12.94	6.0464	53,773.4	35,850.4	89,623.8	27.6260	0.0080	0.51226	0.00101	0.51429
atdmkr_7_1_7	1,330	513	na	na	12.94	6.0464	46,091.5	30,728.9	76,820.4	26.2576	0.0094	0.51273	0.00107	0.51487
atdmkr_7_1_6	1,330	513	na	na	12.94	6.0464	38,409.6	25,607.5	64,017.0	24.7295	0.0108	0.51071	0.00095	0.51262
atdmkr_7_1_5	1,330	513	na	na	12.94	6.0464	30,727.6	20,486.0	51,213.6	22.9848	0.0132	0.51334	0.00090	0.51514
atdmkr_7_1_4	1,330	513	na	na	12.94	6.0464	23,045.7	15,364.5	38,410.2	20.9252	0.0160	0.51289	0.00114	0.51517

Table 6.9.6-21. Results for solid HEU metal content for air transportation

case name	^{235}U (g)	CH_2 (g)	H_2O (g)	Kaolite (g)	htox	Rc (cm)	H_2O (g)	Kao (g)	Shell (g)	Rs (cm)	nlf	k_{eff}	σ	$k_{eff} + 2\sigma$
atdmkr_7_1_3	1,330	513	na	na	12.94	6.0464	15,363.8	10,243.0	25,606.8	18.3531	0.0209	0.51438	0.00127	0.51692
atdmkr_7_1_2	1,330	513	na	na	12.94	6.0464	7,681.9	5,121.5	12,803.4	14.7385	0.0304	0.51402	0.00103	0.51608
atdmkr_7_1_1	1,330	513	na	na	12.94	6.0464	0.0	0.0	0.0	6.0465	0.0739	0.56475	0.00101	0.56677
compromised package, HEU in spherical configuration, none-to-dry Kaolite shell, 20.0 cm water reflector														
7,000g HEU 100% enrichment														
atdmdkr_7_8_11	7,000	513	na	na	2.46	6.0547	2,204.7	51,214.9	53,419.1	31.0814	0.0487	0.59229	0.00094	0.59417
atdmdkr_7_8_10	7,000	513	na	na	2.46	6.0547	1,984.2	46,093.4	48,077.2	30.0170	0.0500	0.59518	0.00088	0.59695
atdmdkr_7_8_9	7,000	513	na	na	2.46	6.0547	1,763.8	40,971.9	42,735.3	28.8712	0.0506	0.59249	0.00102	0.59453
atdmdkr_7_8_8	7,000	513	na	na	2.46	6.0547	1,543.3	35,850.4	37,393.3	27.6264	0.0516	0.59743	0.00105	0.59953
atdmdkr_7_8_7	7,000	513	na	na	2.46	6.0547	1,322.8	30,728.9	32,051.4	26.2581	0.0529	0.59965	0.00135	0.60235
atdmdkr_7_8_6	7,000	513	na	na	2.46	6.0547	1,102.4	25,607.4	26,709.5	24.7300	0.0541	0.60453	0.00113	0.60679
atdmdkr_7_8_5	7,000	513	na	na	2.46	6.0547	881.9	20,486.0	21,367.6	22.9853	0.0557	0.60794	0.00108	0.61010
atdmdkr_7_8_4	7,000	513	na	na	2.46	6.0547	661.4	15,364.5	16,025.7	20.9259	0.0574	0.61664	0.00108	0.61879
atdmdkr_7_8_3	7,000	513	na	na	2.46	6.0547	440.9	10,243.0	10,683.8	18.3540	0.0603	0.62837	0.00115	0.63068
atdmdkr_7_8_2	7,000	513	na	na	2.46	6.0547	220.5	5,121.5	5,341.9	14.7399	0.0653	0.65279	0.00107	0.65492
atdmdkr_7_8_1	7,000	513	na	na	2.46	6.0547	0.0	0.0	0.0	6.0548	0.0727	0.78877	0.00123	0.79123

Table 6.9.6-22a. Results for TRIGA ($UZrH_x$) fuel element content at 19.7 wt % ^{235}U for air transportation

case name	^{235}U (g)	CH_2 (g)	H_2O (g)	Kaolite (g)	htox	Rc (cm)	H_2O (g)	Kaolite (g)	Shell (g)	Rs (cm)	nlf	k_{eff}	σ	$k_{eff} + 2\sigma$
compromised package, 10,400 g $UZrH_x$ in spherical configuration, 20.0 cm water reflector														
atdzr	921	500	na	na	43.37	7.4677	na	na	na	na	0.0617	0.67633	0.00116	0.67906
compromised package, 10,400 g $UZrH_x$ in spherical configuration, steel shell, 20.0 cm water reflector														
atdzsr_11	921	500	na	na	43.37	7.4677	na	na	66,133.0	13.3978	0.0271	0.61692	0.00121	0.61933
atdzsr_10	921	500	na	na	43.37	7.4677	na	na	59,520.0	13.0179	0.0285	0.61377	0.00109	0.61595

Table 6.9.6-22a. Results for TRIGA ($UZrH_x$) fuel element content at 19.7 wt % ^{235}U for air transportation

case name	^{235}U (g)	CH_2 (g)	H_2O (g)	Kaolite (g)	htox	Rc (cm)	H_2O (g)	Kaolite (g)	Shell (g)	Rs (cm)	nlf	k_{eff}	σ	$k_{eff} + 2\sigma$
atdzsr_9	921	500	na	na	43.37	7.4677	na	na	52,907.0	12.6144	0.0301	0.60931	0.00156	0.61243
atdzsr_8	921	500	na	na	43.37	7.4677	na	na	46,293.0	12.1833	0.0315	0.60602	0.00132	0.60867
atdzsr_7	921	500	na	na	43.37	7.4677	na	na	39,680.0	11.7193	0.0332	0.60256	0.00138	0.60533
atdzsr_6	921	500	na	na	43.37	7.4677	na	na	33,067.0	11.2153	0.0356	0.59752	0.00129	0.60010
atdzsr_5	921	500	na	na	43.37	7.4677	na	na	26,453.0	10.6615	0.0379	0.59162	0.00109	0.59381
atdzsr_4	921	500	na	na	43.37	7.4677	na	na	19,840.0	10.0432	0.0407	0.59012	0.00116	0.59243
atdzsr_3	921	500	na	na	43.37	7.4677	na	na	13,227.0	9.3377	0.0458	0.58978	0.00116	0.59210
atdzsr_2	921	500	na	na	43.37	7.4677	na	na	6,613.0	8.5055	0.0515	0.60131	0.00135	0.60401
atdzsr_1	921	500	na	na	43.37	7.4677	na	na	0.0	7.4677	0.0614	0.67521	0.00128	0.67777
compromised package, 10,400 g $UZrH_x$ in spherical configuration, Kaolite shell, 20.0 cm water reflector														
atdzkr_11	921	500	na	na	43.37	7.4677	76,819.4	51,214.9	128,034.0	31.1484	0.0057	0.62901	0.00121	0.63143
atdzkr_10	921	500	na	na	43.37	7.4677	69,137.4	46,093.4	115,230.8	30.0888	0.0062	0.63269	0.00123	0.63515
atdzkr_9	921	500	na	na	43.37	7.4677	61,455.5	40,971.9	102,427.4	28.9488	0.0070	0.62940	0.00134	0.63207
atdzkr_8	921	500	na	na	43.37	7.4677	53,773.5	35,850.4	89,624.0	27.7111	0.0078	0.63130	0.00124	0.63379
atdzkr_7	921	500	na	na	43.37	7.4677	46,091.6	30,728.9	76,820.5	26.3518	0.0086	0.62935	0.00117	0.63168
atdzkr_6	921	500	na	na	43.37	7.4677	38,409.7	25,607.4	64,017.1	24.8355	0.0106	0.63103	0.00126	0.63355
atdzkr_5	921	500	na	na	43.37	7.4677	30,727.7	20,486.0	51,213.7	23.1074	0.0124	0.63018	0.00125	0.63267
atdzkr_4	921	500	na	na	43.37	7.4677	23,045.8	15,364.5	38,410.3	21.0729	0.0150	0.63155	0.00144	0.63442
atdzkr_3	921	500	na	na	43.37	7.4677	15,363.9	10,243.0	25,606.8	18.5444	0.0196	0.63021	0.00146	0.63312
atdzkr_2	921	500	na	na	43.37	7.4677	7,681.9	5,121.5	12,803.4	15.0324	0.0277	0.63366	0.00133	0.63631
atdzkr_1	921	500	na	na	43.37	7.4677	0.0	0.0	0.0	7.4678	0.0607	0.67680	0.00134	0.67948
compromised package, homogenous core of $UZrH_x$, polyethylene, and Kaolite in spherical configuration, 20.0 cm water reflector														
athzpkr_11	921	500	76,819.0	51,214.9	2,220.00	39.1541	na	na	na	na	0.0289	0.46690	0.00060	0.46810
athzpkr_10	921	500	69,357.0	51,214.9	2,008.00	38.5142	na	na	na	na	0.0308	0.46634	0.00070	0.46774
athzpkr_9	921	500	61,896.0	51,214.9	1,797.00	37.8524	na	na	na	na	0.0325	0.46794	0.00072	0.46938

Table 6.9.6-22a. Results for TRIGA ($UZrH_x$) fuel element content at 19.7 wt % ^{235}U for air transportation

case name	^{235}U (g)	CH_2 (g)	H_2O (g)	Kaolite (g)	htox	Rc (cm)	H_2O (g)	Kaolite (g)	Shell (g)	Rs (cm)	nlf	k_{eff}	σ	$k_{eff} + 2\sigma$
athzpkr_8	921	500	54,435.0	51,214.9	1,586.00	37.1666	na	na	na	na	0.0345	0.46711	0.00071	0.46854
athzpkr_7	921	500	46,973.0	51,214.9	1,374.00	36.4545	na	na	na	na	0.0372	0.45900	0.00080	0.46060
athzpkr_6	921	500	39,512.0	51,214.9	1,163.00	35.7134	na	na	na	na	0.0397	0.45205	0.00087	0.45379
athzpkr_5	921	500	32,050.0	51,214.9	951.60	34.9402	na	na	na	na	0.0430	0.43464	0.00080	0.43623
athzpkr_4	921	500	24,589.0	51,214.9	740.20	34.1312	na	na	na	na	0.0465	0.41318	0.00082	0.41482
athzpkr_3	921	500	17,127.0	51,214.9	528.70	33.2819	na	na	na	na	0.0519	0.38374	0.00080	0.38535
athzpkr_2	921	500	9,666.2	51,214.9	317.30	32.3869	na	na	na	na	0.0585	0.34609	0.00090	0.34789
athzpkr_1	921	500	2,204.7	51,214.9	105.80	31.4395	na	na	na	na	0.0672	0.30481	0.00079	0.30639
compromised package, homogenous core ($UZrH_x$, polyethylene, and water from Kaolite shell), 20.0 cm water reflector														
9 fuel segments (10,400 g $UZrH_x$)														
athzpwskr_9_11	921	500	74,614.0	na	2157.00	26.3337	2,204.7	51,214.9	53,419.6	36.3591	0.0137	0.73042	0.00074	0.73191
athzpwskr_9_10	921	500	67,153.0	na	1946.00	25.4464	9,666.2	51,214.9	60,881.0	35.9034	0.0129	0.76078	0.00082	0.76243
athzpwskr_9_9	921	500	59,691.0	na	1735.00	24.4924	17,127.6	51,214.9	68,342.5	35.4359	0.0126	0.79105	0.00088	0.79281
athzpwskr_9_8	921	500	52,230.0	na	1523.00	23.4577	24,589.1	51,214.9	75,803.9	34.9557	0.0117	0.82427	0.00113	0.82653
athzpwskr_9_7	921	500	44,768.0	na	1312.00	22.3227	32,050.6	51,214.9	83,265.4	34.4620	0.0110	0.85846	0.00090	0.86026
athzpwskr_9_6	921	500	37,307.0	na	1100.00	21.0588	39,512.0	51,214.9	90,726.9	33.9536	0.0107	0.89274	0.00105	0.89485
athzpwskr_9_5	921	500	29,845.0	na	889.10	19.6216	46,973.5	51,214.9	98,188.3	33.4296	0.0097	0.92524	0.00117	0.92758
athzpwskr_9_4	921	500	22,384.0	na	677.70	17.9360	54,435.0	51,214.9	105,649.0	32.8886	0.0091	0.94825	0.00123	0.95071
athzpwskr_9_3	921	500	14,922.0	na	466.20	15.8548	61,896.4	51,214.9	113,111.0	32.3292	0.0080	0.95910	0.00127	0.96164
athzpwskr_9_2	921	500	7,461.5	na	254.80	13.0078	69,357.9	51,214.9	120,572.0	31.7498	0.0069	0.92258	0.00137	0.92531
athzpwskr_9_1	921	500	0.0	na	43.37	7.4677	76,819.4	51,214.9	128,034.0	31.1484	0.0056	0.63068	0.00143	0.63354
8 fuel segments (9,244 g $UZrH_x$)														
athzpwskr_8_11	819	500	74,614.0		2424.00	26.3184	2,204.7	51,214.9	53,419.6	36.3510	0.0137	0.68550	0.00068	0.68685
athzpwskr_8_10	819	500	67,153.0		2186.00	25.4300	9,666.2	51,214.9	60,881.0	35.8952	0.0132	0.71544	0.00084	0.71712
athzpwskr_8_9	819	500	59,691.0		1948.00	24.4747	17,127.6	51,214.9	68,342.5	35.4274	0.0127	0.74694	0.00091	0.74875

Table 6.9.6-22a. Results for TRIGA ($UZrH_x$) fuel element content at 19.7 wt % ^{235}U for air transportation

case name	^{235}U (g)	CH_2 (g)	H_2O (g)	Kaolite (g)	htox	Rc (cm)	H_2O (g)	Kaolite (g)	Shell (g)	Rs (cm)	nlf	k_{eff}	σ	$k_{eff} + 2\sigma$
athzpwskr_8_8	819	500	52,230.0		1710.00	23.4384	24,589.1	51,214.9	75,803.9	34.9470	0.0118	0.78124	0.00105	0.78334
athzpwskr_8_7	819	500	44,768.0		1472.00	22.3014	32,050.6	51,214.9	83,265.4	34.4530	0.0112	0.81614	0.00081	0.81776
athzpwskr_8_6	819	500	37,307.0		1235.00	21.0348	39,512.0	51,214.9	90,726.9	33.9444	0.0102	0.85317	0.00091	0.85499
athzpwskr_8_5	819	500	29,845.0		997.20	19.5940	46,973.5	51,214.9	98,188.3	33.4201	0.0095	0.88863	0.00106	0.89075
athzpwskr_8_4	819	500	22,384.0		759.30	17.9029	54,435.0	51,214.9	105,649.0	32.8788	0.0089	0.92262	0.00120	0.92503
athzpwskr_8_3	819	500	14,922.0		521.40	15.8124	61,896.4	51,214.9	113,111.0	32.3191	0.0080	0.93749	0.00145	0.94039
athzpwskr_8_2	819	500	7,461.5		283.50	12.9447	69,357.9	51,214.9	120,572.0	31.7393	0.0071	0.90663	0.00114	0.90892
athzpwskr_8_1	819	500	0.0		45.65	7.2723	76,819.4	51,214.9	128,034.0	31.1374	0.0054	0.61678	0.00122	0.61922
7 fuel segments (8,089g $UZrH_x$)														
athzpwskr_7_11	716	500	74,614.0		2767.00	26.3031	2,204.7	51,214.9	53,419.6	36.3430	0.0139	0.63543	0.00076	0.63695
athzpwskr_7_10	716	500	67,153.0		2495.00	25.4135	9,666.2	51,214.9	60,881.0	35.8869	0.0131	0.66621	0.00060	0.66742
athzpwskr_7_9	716	500	59,691.0		2223.00	24.4570	17,127.6	51,214.9	68,342.5	35.4190	0.0125	0.69724	0.00074	0.69872
athzpwskr_7_8	716	500	52,230.0		1951.00	23.4191	24,589.1	51,214.9	75,803.9	34.9383	0.0118	0.73306	0.00095	0.73496
athzpwskr_7_7	716	500	44,768.0		1679.00	22.2800	32,050.6	51,214.9	83,265.4	34.4441	0.0111	0.76887	0.00095	0.77077
athzpwskr_7_6	716	500	37,307.0		1407.00	21.0108	39,512.0	51,214.9	90,726.9	33.9352	0.0106	0.80872	0.00103	0.81078
athzpwskr_7_5	716	500	29,845.0		1136.00	19.5663	46,973.5	51,214.9	98,188.3	33.4106	0.0096	0.84859	0.00119	0.85097
athzpwskr_7_4	716	500	22,384.0		864.10	17.8697	54,435.0	51,214.9	105,649.0	32.8690	0.0089	0.88532	0.00101	0.88735
athzpwskr_7_3	716	500	14,922.0		592.30	15.7698	61,896.4	51,214.9	113,111.0	32.3089	0.0081	0.90821	0.00168	0.91157
athzpwskr_7_2	716	500	7,461.5		320.40	12.8811	69,357.9	51,214.9	120,572.0	31.7287	0.0071	0.88554	0.00160	0.88875
athzpwskr_7_1	716	500	0.0		48.57	7.0657	76,819.4	51,214.9	128,034.0	31.1265	0.0057	0.59808	0.00127	0.60062
6 fuel segments (6,933 g $UZrH_x$)														
athzpwskr_6_11	614	500	74,614.0		3224.00	26.2877	2,204.7	51,214.9	53,419.6	36.3349	0.0138	0.58035	0.00069	0.58174
athzpwskr_6_10	614	500	67,153.0		2907.00	25.3971	9,666.2	51,214.9	60,881.0	35.8787	0.0134	0.60885	0.00077	0.61039
athzpwskr_6_9	614	500	59,691.0		2589.00	24.4392	17,127.6	51,214.9	68,342.5	35.4105	0.0124	0.64015	0.00062	0.64140
athzpwskr_6_8	614	500	52,230.0		2272.00	23.3997	24,589.1	51,214.9	75,803.9	34.9296	0.0120	0.67689	0.00071	0.67830

Table 6.9.6-22a. Results for TRIGA ($UZrH_x$) fuel element content at 19.7 wt % ^{235}U for air transportation

case name	^{235}U (g)	CH_2 (g)	H_2O (g)	Kaolite (g)	htox	Rc (cm)	H_2O (g)	Kaolite (g)	Shell (g)	Rs (cm)	nlf	k_{eff}	σ	$k_{eff} + 2\sigma$
athzpwskr_6_7	614	500	44,768.0		1955.00	22.2586	32,050.6	51,214.9	83,265.4	34.4351	0.0108	0.71368	0.00081	0.71530
athzpwskr_6_6	614	500	37,307.0		1638.00	20.9867	39,512.0	51,214.9	90,726.9	33.9260	0.0103	0.75489	0.00118	0.75725
athzpwskr_6_5	614	500	29,845.0		1321.00	19.5385	46,973.5	51,214.9	98,188.3	33.4011	0.0096	0.79977	0.00091	0.80159
athzpwskr_6_4	614	500	22,384.0		1004.00	17.8364	54,435.0	51,214.9	105,649.0	32.8592	0.0089	0.83986	0.00099	0.84184
athzpwskr_6_3	614	500	14,922.0		686.80	15.7270	61,896.4	51,214.9	113,111.0	32.2987	0.0079	0.87249	0.00118	0.87484
athzpwskr_6_2	614	500	7,461.5		369.60	12.8167	69,357.9	51,214.9	120,572.0	31.7182	0.0070	0.86601	0.00123	0.86846
athzpwskr_6_1	614	500	0.0		52.47	6.8462	76,819.4	51,214.9	128,034.0	31.1155	0.0054	0.58104	0.00119	0.58341

Table 6.9.6-22b. Results for TRIGA ($UZrH_x$) fuel element content at 70.1 wt % ^{235}U for air transportation

case name	^{235}U (g)	CH_2 (g)	H_2O (g)	Kaolite (g)	htox	Rc (cm)	H_2O (g)	Kaolite (g)	Shell (g)	Rs (cm)	nlf	k_{eff}	σ	$k_{eff} + 2\sigma$
compromised package, 6847g $UZrH_x$ in spherical configuration, 20.0 cm water reflector														
atdzr_70	408	500	na	na	103.30	7.4677	na	na	na	na	0.0624	0.67908	0.00139	0.68187
compromised package, 6,847 g $UZrH_x$ in spherical configuration, steel shell, 20.0 cm water reflector														
atdzsr_70_11	408	500	na	na	103.30	7.4677	na	na	66,133.1	13.3978	0.0280	0.62618	0.00125	0.62868
atdzsr_70_10	408	500	na	na	103.30	7.4677	na	na	59,519.8	13.0179	0.0296	0.62153	0.00132	0.62417
atdzsr_70_9	408	500	na	na	103.30	7.4677	na	na	52,906.5	12.6144	0.0306	0.61874	0.00131	0.62135
atdzsr_70_8	408	500	na	na	103.30	7.4677	na	na	46,293.2	12.1833	0.0323	0.61302	0.00159	0.61619
atdzsr_70_7	408	500	na	na	103.30	7.4677	na	na	39,679.9	11.7193	0.0343	0.60579	0.00123	0.60825
atdzsr_70_6	408	500	na	na	103.30	7.4677	na	na	33,066.6	11.2153	0.0368	0.60315	0.00128	0.60571
atdzsr_70_5	408	500	na	na	103.30	7.4677	na	na	26,453.3	10.6615	0.0392	0.59802	0.00120	0.60043
atdzsr_70_4	408	500	na	na	103.30	7.4677	na	na	19,839.9	10.0432	0.0427	0.58654	0.00123	0.58900
atdzsr_70_3	408	500	na	na	103.30	7.4677	na	na	13,226.6	9.3377	0.0470	0.58790	0.00125	0.59040
atdzsr_70_2	408	500	na	na	103.30	7.4677	na	na	6,613.3	8.5055	0.0529	0.59739	0.00132	0.60003
atdzsr_70_1	408	500	na	na	103.30	7.4677	na	na	0.0	7.4677	0.0627	0.67646	0.00125	0.67896

Table 6.9.6-22b. Results for TRIGA ($UZrH_x$) fuel element content at 70.1 wt % ^{235}U for air transportation

case name	^{235}U (g)	CH_2 (g)	H_2O (g)	Kaolite (g)	htox	Rc (cm)	H_2O (g)	Kaolite (g)	Shell (g)	Rs (cm)	nlf	k_{eff}	σ	$k_{eff} + 2\sigma$
compromised package, 6,847 g $UZrH_x$ in spherical configuration, Kaolite shell, 20.0 cm water reflector														
atdzkr_70_11	408	500	na	na	103.30	7.4677	76,819.1	51,214.9	128,034.0	31.1484	0.0059	0.62875	0.00163	0.63201
atdzkr_70_10	408	500	na	na	103.30	7.4677	69,137.2	46,093.4	115,230.6	30.0888	0.0065	0.63092	0.00145	0.63382
atdzkr_70_9	408	500	na	na	103.30	7.4677	61,455.3	40,971.9	102,427.2	28.9488	0.0071	0.62976	0.00120	0.63217
atdzkr_70_8	408	500	na	na	103.30	7.4677	53,773.4	35,850.4	89,623.8	27.7111	0.0081	0.62727	0.00127	0.62981
atdzkr_70_7	408	500	na	na	103.30	7.4677	46,091.5	30,728.9	76,820.4	26.3518	0.0091	0.63196	0.00132	0.63460
atdzkr_70_6	408	500	na	na	103.30	7.4677	38,409.6	25,607.4	64,017.0	24.8355	0.0105	0.63124	0.00126	0.63376
atdzkr_70_5	408	500	na	na	103.30	7.4677	30,727.6	20,486.0	51,213.6	23.1074	0.0128	0.62913	0.00120	0.63153
atdzkr_70_4	408	500	na	na	103.30	7.4677	23,045.7	15,364.5	38,410.2	21.0729	0.0155	0.62943	0.00124	0.63192
atdzkr_70_3	408	500	na	na	103.30	7.4677	15,363.8	10,243.0	25,606.8	18.5444	0.0198	0.62910	0.00118	0.63146
atdzkr_70_2	408	500	na	na	103.30	7.4677	7,681.9	5,121.5	12,803.4	15.0324	0.0288	0.62962	0.00139	0.63240
atdzkr_70_1	408	500	na	na	103.30	7.4677	0.0	0.0	0.0	7.4677	0.0629	0.67511	0.00143	0.67798
compromised package, homogenous core of 6,847 g $UZrH_x$, polyethylene, and Kaolite in spherical configuration, 20.0 cm water reflector														
athzpkr_70_11	408	500	76,819.0	51,214.9	5017.00	39.1541	na	na	na	na	0.0290	0.26748	0.00033	0.26814
athzpkr_70_10	408	500	69,357.0	51,214.9	4540.00	38.5142	na	na	na	na	0.0307	0.27025	0.00042	0.27108
athzpkr_70_9	408	500	61,896.0	51,214.9	4063.00	37.8524	na	na	na	na	0.0325	0.27525	0.00044	0.27612
athzpkr_70_8	408	500	54,435.0	51,214.9	3585.00	37.1666	na	na	na	na	0.0347	0.27839	0.00046	0.27931
athzpkr_70_7	408	500	46,973.0	51,214.9	3108.00	36.4545	na	na	na	na	0.0369	0.27822	0.00049	0.27920
athzpkr_70_6	408	500	39,512.0	51,214.9	2631.00	35.7134	na	na	na	na	0.0398	0.27705	0.00056	0.27818
athzpkr_70_5	408	500	32,050.0	51,214.9	2153.00	34.9402	na	na	na	na	0.0427	0.27191	0.00049	0.27289
athzpkr_70_4	408	500	24,589.0	51,214.9	1676.00	34.1312	na	na	na	na	0.0473	0.26332	0.00052	0.26437
athzpkr_70_3	408	500	17,127.0	51,214.9	1199.00	33.2819	na	na	na	na	0.0519	0.25025	0.00056	0.25138
athzpkr_70_2	408	500	9,666.2	51,214.9	721.60	32.3869	na	na	na	na	0.0591	0.22951	0.00053	0.23057
athzpkr_70_1	408	500	2,204.7	51,214.9	244.30	31.4395	na	na	na	na	0.0679	0.20646	0.00055	0.20755

Table 6.9.6-22b. Results for TRIGA ($UZrH_x$) fuel element content at 70.1 wt % ^{235}U for air transportation

case name	^{235}U (g)	CH_2 (g)	H_2O (g)	Kaolite (g)	htox	Rc (cm)	H_2O (g)	Kaolite (g)	Shell (g)	Rs (cm)	nlf	k_{eff}	σ	$k_{eff} + 2\sigma$
compromised package, homogenous core (6,847 g $UZrH_x$, polyethylene, and water from Kaolite shell), 20.0 cm water reflector														
athzpwskr_70_11	408	500	74,614.0	na	4876.00	26.3337	2,204.7	51,214.9	53,419.6	36.3591	0.0134	0.44499	0.00044	0.44586
athzpwskr_70_10	408	500	67,153.0	na	4399.00	25.4464	9,666.2	51,214.9	60,881.0	35.9034	0.0130	0.47137	0.00054	0.47245
athzpwskr_70_9	408	500	59,691.0	na	3921.00	24.4924	17,127.6	51,214.9	68,342.5	35.4359	0.0123	0.50131	0.00054	0.50240
athzpwskr_70_8	408	500	52,230.0	na	3444.00	23.4577	24,589.1	51,214.9	75,803.9	34.9557	0.0118	0.53602	0.00064	0.53731
athzpwskr_70_7	408	500	44,768.0	na	2967.00	22.3227	32,050.6	51,214.9	83,265.4	34.4620	0.0111	0.57515	0.00057	0.57630
athzpwskr_70_6	408	500	37,307.0	na	2489.00	21.0588	39,512.0	51,214.9	90,726.9	33.9536	0.0104	0.62110	0.00071	0.62252
athzpwskr_70_5	408	500	29,845.0	na	2012.00	19.6216	46,973.5	51,214.9	98,188.3	33.4296	0.0096	0.67041	0.00078	0.67197
athzpwskr_70_4	408	500	22,384.0	na	1535.00	17.9360	54,435.0	51,214.9	105,649.0	32.8886	0.0087	0.72604	0.00103	0.72811
athzpwskr_70_3	408	500	14,922.0	na	1057.00	15.8548	61,896.4	51,214.9	113,111.0	32.3292	0.0078	0.78713	0.00124	0.78961
athzpwskr_70_2	408	500	7,461.5	na	580.60	13.0078	69,357.9	51,214.9	120,572.0	31.7498	0.0069	0.82138	0.00139	0.82415
athzpwskr_70_1	408	500	0.0	na	103.30	7.4677	76,819.4	51,214.9	128,034.0	31.1484	0.0057	0.62877	0.00145	0.63168

Table 6.9.6-23. Results for HEU broken metal content for air transportation

case name	^{235}U (g)	CH_2 (g)	H_2O (g)	Kaolite (g)	htox	Rc (cm)	H_2O (g)	Kao (g)	Shell (g)	Rs (cm)	nlf	k_{eff}	σ	$k_{eff} + 2\sigma$
compromised package, HEU in spherical configuration, 20.0 cm water reflector (See Table 6.9.6-21)														
compromised package, HEU in spherical configuration, Kaolite shell, 20.0 cm water reflector (See Table 6.9.6-21)														
compromised package, HEU in spherical configuration, Kaolite shell, 20.0 cm water reflector (See Table 6.9.6-21)														
compromised package, homogenous core of HEU broken metal, polyethylene, and Kaolite in spherical configuration, 20.0 cm water reflector														
7,000g HEU 100% enrichment														
athmpkr_12_8_11	7,000	513	76,819.0	51,214.9	288.80	39.11173	na	na	na	na	0.0303	1.02117	0.00126	1.02369
athmpkr_12_8_10	7,000	513	69,357.0	51,214.9	261.00	38.47048	na	na	na	na	0.0316	1.00126	0.00127	1.00381
athmpkr_12_8_9	7,000	513	61,896.0	51,214.9	233.20	37.80710	na	na	na	na	0.0329	0.97483	0.00132	0.97746
athmpkr_12_8_8	7,000	513	54,435.0	51,214.9	205.40	37.11959	na	na	na	na	0.0351	0.94449	0.00130	0.94709

Table 6.9.6-23. Results for HEU broken metal content for air transportation

case name	^{235}U (g)	CH_2 (g)	H_2O (g)	Kaolite (g)	htox	Rc (cm)	H_2O (g)	Kao (g)	Shell (g)	Rs (cm)	nlf	k_{eff}	σ	$k_{eff} + 2\sigma$
athmpkr_12_8_7	7,000	513	46,973.0	51,214.9	177.60	36.40562	na	na	na	na	0.0373	0.90773	0.00123	0.91019
athmpkr_12_8_6	7,000	513	39,512.0	51,214.9	149.70	35.66249	na	na	na	na	0.0405	0.86356	0.00129	0.86614
athmpkr_12_8_5	7,000	513	32,050.0	51,214.9	121.90	34.88702	na	na	na	na	0.0438	0.80722	0.00131	0.80984
athmpkr_12_8_4	7,000	513	24,589.0	51,214.9	94.14	34.07546	na	na	na	na	0.0473	0.74163	0.00124	0.74411
athmpkr_12_8_3	7,000	513	17,127.0	51,214.9	66.32	33.22329	na	na	na	na	0.0522	0.66883	0.00119	0.67121
athmpkr_12_8_2	7,000	513	9,666.2	51,214.9	38.50	32.32500	na	na	na	na	0.0579	0.58476	0.00116	0.58707
athmpkr_12_8_1	7,000	513	2,204.7	51,214.9	10.68	31.37380	na	na	na	na	0.0660	0.49910	0.00115	0.50141
6,000g HEU 100% enrichment														
athmpkr_11_8_11	6,000	513	76,819.0	51,214.9	337.00	39.10897	na	na	na	na	0.0296	0.99414	0.00136	0.99686
athmpkr_11_8_10	6,000	513	69,357.0	51,214.9	304.50	38.46762	na	na	na	na	0.0317	0.97423	0.00134	0.97691
athmpkr_11_8_9	6,000	513	61,896.0	51,214.9	272.10	37.80414	na	na	na	na	0.0333	0.94998	0.00135	0.95269
athmpkr_11_8_8	6,000	513	54,435.0	51,214.9	239.60	37.11651	na	na	na	na	0.0351	0.92270	0.00139	0.92549
athmpkr_11_8_7	6,000	513	46,973.0	51,214.9	207.20	36.40242	na	na	na	na	0.0378	0.88445	0.00148	0.88741
athmpkr_11_8_6	6,000	513	39,512.0	51,214.9	174.70	35.65916	na	na	na	na	0.0408	0.84157	0.00122	0.84401
athmpkr_11_8_5	6,000	513	32,050.0	51,214.9	142.20	34.88355	na	na	na	na	0.0435	0.79067	0.00131	0.79329
athmpkr_11_8_4	6,000	513	24,589.0	51,214.9	109.80	34.07182	na	na	na	na	0.0472	0.72721	0.00132	0.72984
athmpkr_11_8_3	6,000	513	17,127.0	51,214.9	77.38	33.21946	na	na	na	na	0.0521	0.65397	0.00117	0.65630
athmpkr_11_8_2	6,000	513	9,666.2	51,214.9	44.92	32.32095	na	na	na	na	0.0576	0.57446	0.00112	0.57670
athmpkr_11_8_1	6,000	513	2,204.7	51,214.9	12.46	31.36950	na	na	na	na	0.0668	0.48779	0.00112	0.49002
5,000g HEU 100% enrichment														
athmpkr_10_8_11	5,000	513	76,819.0	51,214.9	404.40	39.10620	na	na	na	na	0.0294	0.95646	0.00121	0.95888
athmpkr_10_8_10	5,000	513	69,357.0	51,214.9	365.50	38.46476	na	na	na	na	0.0314	0.94048	0.00114	0.94276
athmpkr_10_8_9	5,000	513	61,896.0	51,214.9	326.50	37.80118	na	na	na	na	0.0330	0.91763	0.00150	0.92063
athmpkr_10_8_8	5,000	513	54,435.0	51,214.9	287.60	37.11344	na	na	na	na	0.0354	0.89037	0.00129	0.89296
athmpkr_10_8_7	5,000	513	46,973.0	51,214.9	248.60	36.39923	na	na	na	na	0.0373	0.85732	0.00122	0.85977

Table 6.9.6-23. Results for HEU broken metal content for air transportation

case name	^{235}U (g)	CH_2 (g)	H_2O (g)	Kaolite (g)	htox	Rc (cm)	H_2O (g)	Kao (g)	Shell (g)	Rs (cm)	nlf	k_{eff}	σ	$k_{eff} + 2\sigma$
athmpkr_10_8_6	5,000	513	39,512.0	51,214.9	209.70	35.65583	na	na	na	na	0.0401	0.81566	0.00126	0.81819
athmpkr_10_8_5	5,000	513	32,050.0	51,214.9	170.70	34.88007	na	na	na	na	0.0434	0.76481	0.00134	0.76750
athmpkr_10_8_4	5,000	513	24,589.0	51,214.9	131.80	34.06818	na	na	na	na	0.0473	0.70780	0.00130	0.71040
athmpkr_10_8_3	5,000	513	17,127.0	51,214.9	92.85	33.21562	na	na	na	na	0.0522	0.63560	0.00122	0.63804
athmpkr_10_8_2	5,000	513	9,666.2	51,214.9	53.90	32.31690	na	na	na	na	0.0586	0.55806	0.00122	0.56051
athmpkr_10_8_1	5,000	513	2,204.7	51,214.9	14.95	31.36520	na	na	na	na	0.0670	0.47312	0.00116	0.47544
4,500g HEU 100% enrichment														
athmpkr_9_8_11	4,500	513	76,819.0	51,214.9	449.30	39.10482	na	na	na	na	0.0298	0.93346	0.00133	0.93612
athmpkr_9_8_10	4,500	513	69,357.0	51,214.9	406.10	38.46333	na	na	na	na	0.0313	0.91551	0.00143	0.91836
athmpkr_9_8_9	4,500	513	61,896.0	51,214.9	362.80	37.79970	na	na	na	na	0.0335	0.89522	0.00152	0.89826
athmpkr_9_8_8	4,500	513	54,435.0	51,214.9	319.50	37.11191	na	na	na	na	0.0353	0.87213	0.00126	0.87465
athmpkr_9_8_7	4,500	513	46,973.0	51,214.9	276.20	36.39763	na	na	na	na	0.0377	0.84048	0.00133	0.84313
athmpkr_9_8_6	4,500	513	39,512.0	51,214.9	233.00	35.65417	na	na	na	na	0.0404	0.80226	0.00125	0.80476
athmpkr_9_8_5	4,500	513	32,050.0	51,214.9	189.70	34.87833	na	na	na	na	0.0437	0.75194	0.00122	0.75439
athmpkr_9_8_4	4,500	513	24,589.0	51,214.9	146.40	34.06635	na	na	na	na	0.0476	0.69314	0.00112	0.69538
athmpkr_9_8_3	4,500	513	17,127.0	51,214.9	103.10	33.21370	na	na	na	na	0.0524	0.62629	0.00119	0.62867
athmpkr_9_8_2	4,500	513	9,666.2	51,214.9	59.89	32.31488	na	na	na	na	0.0584	0.54872	0.00115	0.55101
athmpkr_9_8_1	4,500	513	2,204.7	51,214.9	16.61	31.36305	na	na	na	na	0.0669	0.46796	0.00115	0.47026
4,000g HEU 100% enrichment														
athmpkr_8_8_11	4,000	513	76,819.0	51,214.9	505.50	39.10344	na	na	na	na	0.0298	0.90432	0.00121	0.90674
athmpkr_8_8_10	4,000	513	69,357.0	51,214.9	456.80	38.46190	na	na	na	na	0.0319	0.88942	0.00129	0.89199
athmpkr_8_8_9	4,000	513	61,896.0	51,214.9	408.10	37.79822	na	na	na	na	0.0334	0.87153	0.00115	0.87382
athmpkr_8_8_8	4,000	513	54,435.0	51,214.9	359.50	37.11037	na	na	na	na	0.0350	0.84664	0.00127	0.84918
athmpkr_8_8_7	4,000	513	46,973.0	51,214.9	310.80	36.39604	na	na	na	na	0.0370	0.82052	0.00118	0.82288
athmpkr_8_8_6	4,000	513	39,512.0	51,214.9	262.10	35.65250	na	na	na	na	0.0405	0.77971	0.00116	0.78203

Table 6.9.6-23. Results for HEU broken metal content for air transportation

case name	^{235}U (g)	CH_2 (g)	H_2O (g)	Kaolite (g)	htox	Rc (cm)	H_2O (g)	Kao (g)	Shell (g)	Rs (cm)	nlf	k_{eff}	σ	$k_{eff} + 2\sigma$
athmpkr_8_8_5	4,000	513	32,050.0	51,214.9	213.40	34.87659	na	na	na	na	0.0435	0.73454	0.00143	0.73739
athmpkr_8_8_4	4,000	513	24,589.0	51,214.9	164.70	34.06453	na	na	na	na	0.0481	0.67953	0.00135	0.68224
athmpkr_8_8_3	4,000	513	17,127.0	51,214.9	116.00	33.21179	na	na	na	na	0.0526	0.61370	0.00125	0.61620
athmpkr_8_8_2	4,000	513	9,666.2	51,214.9	67.38	32.31285	na	na	na	na	0.0589	0.53800	0.00112	0.54024
athmpkr_8_8_1	4,000	513	2,204.7	51,214.9	18.69	31.36090	na	na	na	na	0.0672	0.45619	0.00091	0.45801
35,000g HEU 20% enrichment														
athmpkr_12_1_11	7,000	513	76,819.0	51,214.9	57.78	39.18804	na	na	na	na	0.0301	0.96192	0.00133	0.96459
athmpkr_12_1_10	7,000	513	69,357.0	51,214.9	52.21	38.54934	na	na	na	na	0.0314	0.94161	0.00143	0.94448
athmpkr_12_1_9	7,000	513	61,896.0	51,214.9	46.65	37.88874	na	na	na	na	0.0329	0.91690	0.00128	0.91946
athmpkr_12_1_8	7,000	513	54,435.0	51,214.9	41.09	37.20427	na	na	na	na	0.0348	0.88747	0.00124	0.88995
athmpkr_12_1_7	7,000	513	46,973.0	51,214.9	35.52	36.49364	na	na	na	na	0.0374	0.85152	0.00140	0.85433
athmpkr_12_1_6	7,000	513	39,512.0	51,214.9	29.96	35.75421	na	na	na	na	0.0399	0.80727	0.00130	0.80988
athmpkr_12_1_5	7,000	513	32,050.0	51,214.9	24.39	34.98285	na	na	na	na	0.0428	0.75729	0.00132	0.75994
athmpkr_12_1_4	7,000	513	24,589.0	51,214.9	18.83	34.17589	na	na	na	na	0.0463	0.70008	0.00133	0.70274
athmpkr_12_1_3	7,000	513	17,127.0	51,214.9	13.26	33.32891	na	na	na	na	0.0504	0.63481	0.00122	0.63725
athmpkr_12_1_2	7,000	513	9,666.2	51,214.9	7.70	32.43654	na	na	na	na	0.0564	0.56213	0.00123	0.56458
athmpkr_12_1_1	7,000	513	2,204.7	51,214.9	2.14	31.49217	na	na	na	na	0.0641	0.48853	0.00108	0.49068
30,000g HEU 20% enrichment														
athmpkr_11_1_11	6,000	513	76,819.0	51,214.9	67.41	39.17440	na	na	na	na	0.0295	0.93897	0.00126	0.94150
athmpkr_11_1_10	6,000	513	69,357.0	51,214.9	60.92	38.53524	na	na	na	na	0.0308	0.91990	0.00112	0.92213
athmpkr_11_1_9	6,000	513	61,896.0	51,214.9	54.43	37.87415	na	na	na	na	0.0328	0.89565	0.00141	0.89848
athmpkr_11_1_8	6,000	513	54,435.0	51,214.9	47.93	37.18914	na	na	na	na	0.0350	0.86704	0.00129	0.86961
athmpkr_11_1_7	6,000	513	46,973.0	51,214.9	41.44	36.47792	na	na	na	na	0.0373	0.83339	0.00110	0.83560
athmpkr_11_1_6	6,000	513	39,512.0	51,214.9	34.95	35.73782	na	na	na	na	0.0395	0.79255	0.00152	0.79560
athmpkr_11_1_5	6,000	513	32,050.0	51,214.9	28.46	34.96573	na	na	na	na	0.0426	0.74225	0.00124	0.74473

Table 6.9.6-23. Results for HEU broken metal content for air transportation

case name	^{235}U (g)	CH_2 (g)	H_2O (g)	Kaolite (g)	htox	Rc (cm)	H_2O (g)	Kao (g)	Shell (g)	Rs (cm)	nlf	k_{eff}	σ	$k_{eff} + 2\sigma$
athmpkr_11_1_4	6,000	513	24,589.0	51,214.9	21.97	34.15796	na	na	na	na	0.0467	0.68601	0.00131	0.68863
athmpkr_11_1_3	6,000	513	17,127.0	51,214.9	15.48	33.31005	na	na	na	na	0.0513	0.62146	0.00116	0.62378
athmpkr_11_1_2	6,000	513	9,666.2	51,214.9	8.98	32.41663	na	na	na	na	0.0569	0.55015	0.00105	0.55225
athmpkr_11_1_1	6,000	513	2,204.7	51,214.9	2.49	31.47105	na	na	na	na	0.0648	0.47666	0.00112	0.47889
25,000g HEU 20% enrichment														
athmpkr_10_1_11	5,000	513	76,819.0	51,214.9	80.89	39.16075	na	na	na	na	0.0298	0.90855	0.00127	0.91109
athmpkr_10_1_10	5,000	513	69,357.0	51,214.9	73.10	38.52114	na	na	na	na	0.0313	0.88989	0.00113	0.89214
athmpkr_10_1_9	5,000	513	61,896.0	51,214.9	65.31	37.85955	na	na	na	na	0.0333	0.86764	0.00140	0.87044
athmpkr_10_1_8	5,000	513	54,435.0	51,214.9	57.52	37.17399	na	na	na	na	0.0349	0.84114	0.00150	0.84413
athmpkr_10_1_7	5,000	513	46,973.0	51,214.9	49.73	36.46217	na	na	na	na	0.0375	0.81229	0.00117	0.81463
athmpkr_10_1_6	5,000	513	39,512.0	51,214.9	41.94	35.72142	na	na	na	na	0.0399	0.77026	0.00129	0.77285
athmpkr_10_1_5	5,000	513	32,050.0	51,214.9	34.15	34.94860	na	na	na	na	0.0428	0.72521	0.00110	0.72741
athmpkr_10_1_4	5,000	513	24,589.0	51,214.9	26.36	34.14000	na	na	na	na	0.0464	0.66966	0.00118	0.67201
athmpkr_10_1_3	5,000	513	17,127.0	51,214.9	18.57	33.29117	na	na	na	na	0.0513	0.60484	0.00106	0.60696
athmpkr_10_1_2	5,000	513	9,666.2	51,214.9	10.78	32.39669	na	na	na	na	0.0569	0.53554	0.00110	0.53774
athmpkr_10_1_1	5,000	513	2,204.7	51,214.9	2.99	31.44989	na	na	na	na	0.0657	0.46235	0.00101	0.46436
compromised package, homogenous core (HEU broken metal, polyethylene, and water from Kaolite shell), 20.0 cm water reflector														
7,000g HEU 100% enrichment														
athmpwskr_12_8_11	7,000	513	74,614.0	na	280.60	26.23990	2,204.7	51,214.9	53,419.6	36.3100	0.0147	1.40566	0.00163	1.40891
athmpwskr_12_8_10	7,000	513	67,153.0	na	252.80	25.34586	9,666.2	51,214.9	60,881.0	35.8530	0.0143	1.40534	0.00159	1.40851
athmpwskr_12_8_9	7,000	513	59,691.0	na	225.00	24.38387	17,127.6	51,214.9	68,342.5	35.3842	0.0132	1.40155	0.00136	1.40427
athmpwskr_12_8_8	7,000	513	52,230.0	na	197.20	23.33933	24,589.1	51,214.9	75,803.9	34.9026	0.0127	1.39948	0.00148	1.40243
athmpwskr_12_8_7	7,000	513	44,768.0	na	169.30	22.19184	32,050.6	51,214.9	83,265.4	34.4073	0.0120	1.38745	0.00140	1.39024
athmpwskr_12_8_6	7,000	513	37,307.0	na	141.50	20.91156	39,512.0	51,214.9	90,726.9	33.8973	0.0112	1.37472	0.00171	1.37815
athmpwskr_12_8_5	7,000	513	29,845.0	na	113.70	19.45176	46,973.5	51,214.9	98,188.3	33.3715	0.0101	1.34516	0.00143	1.34802

Table 6.9.6-23. Results for HEU broken metal content for air transportation

case name	^{235}U (g)	CH_2 (g)	H_2O (g)	Kaolite (g)	htox	Rc (cm)	H_2O (g)	Kao (g)	Shell (g)	Rs (cm)	nlf	k_{eff}	σ	$k_{eff} + 2\sigma$
athmpwskr_12_8_4	7,000	513	22,384.0	na	85.92	17.73212	54,435.0	51,214.9	105,649.0	32.8286	0.0092	1.30120	0.00174	1.30468
athmpwskr_12_8_3	7,000	513	14,922.0	na	58.10	15.59253	61,896.4	51,214.9	113,111.0	32.2671	0.0082	1.23073	0.00150	1.23372
athmpwskr_12_8_2	7,000	513	7,461.5	na	30.28	12.61277	69,357.9	51,214.9	120,572.0	31.6853	0.0074	1.09181	0.00180	1.09541
athmpwskr_12_8_1	7,000	513	0.0	na	2.46	6.05465	76,819.4	51,214.9	128,034.0	31.0814	0.0059	0.74568	0.00119	0.74806
6,000g HEU 100% enrichment														
athmpwskr_11_8_11	6,000	513	74,614.0	na	327.40	26.23375	2,204.7	51,214.9	53,419.6	36.3067	0.0146	1.37327	0.00128	1.37583
athmpwskr_11_8_10	6,000	513	67,153.0	na	294.90	25.33928	9,666.2	51,214.9	60,881.0	35.8498	0.0141	1.37801	0.00135	1.38071
athmpwskr_11_8_9	6,000	513	59,691.0	na	262.50	24.37676	17,127.6	51,214.9	68,342.5	35.3808	0.0133	1.37898	0.00144	1.38186
athmpwskr_11_8_8	6,000	513	52,230.0	na	230.00	23.33156	24,589.1	51,214.9	75,803.9	34.8991	0.0127	1.37963	0.00145	1.38253
athmpwskr_11_8_7	6,000	513	44,768.0	na	197.60	22.18325	32,050.6	51,214.9	83,265.4	34.4037	0.0115	1.37069	0.00134	1.37337
athmpwskr_11_8_6	6,000	513	37,307.0	na	165.10	20.90188	39,512.0	51,214.9	90,726.9	33.8936	0.0113	1.35827	0.00151	1.36128
athmpwskr_11_8_5	6,000	513	29,845.0	na	132.70	19.44057	46,973.5	51,214.9	98,188.3	33.3677	0.0102	1.33346	0.00169	1.33684
athmpwskr_11_8_4	6,000	513	22,384.0	na	100.20	17.71865	54,435.0	51,214.9	105,649.0	32.8247	0.0092	1.29338	0.00156	1.29649
athmpwskr_11_8_3	6,000	513	14,922.0	na	67.78	15.57511	61,896.4	51,214.9	113,111.0	32.2630	0.0083	1.22486	0.00149	1.22783
athmpwskr_11_8_2	6,000	513	7,461.5	na	35.33	12.58612	69,357.9	51,214.9	120,572.0	31.6811	0.0072	1.08845	0.00153	1.09150
athmpwskr_11_8_1	6,000	513	0.0	na	2.87	5.93698	76,819.4	51,214.9	128,034.0	31.0770	0.0059	0.72381	0.00141	0.72662
5,000g HEU 100% enrichment														
athmpwskr_10_8_11	5,000	513	74,614.0	na	392.90	26.22760	2,204.7	51,214.9	53,419.6	36.3035	0.0146	1.33984	0.00131	1.34246
athmpwskr_10_8_10	5,000	513	67,153.0	na	353.90	25.33269	9,666.2	51,214.9	60,881.0	35.8465	0.0138	1.34369	0.00132	1.34633
athmpwskr_10_8_9	5,000	513	59,691.0	na	315.00	24.36964	17,127.6	51,214.9	68,342.5	35.3774	0.0132	1.34600	0.00155	1.34910
athmpwskr_10_8_8	5,000	513	52,230.0	na	276.00	23.32378	24,589.1	51,214.9	75,803.9	34.8956	0.0123	1.35066	0.00167	1.35399
athmpwskr_10_8_7	5,000	513	44,768.0	na	237.10	22.17465	32,050.6	51,214.9	83,265.4	34.4001	0.0118	1.34411	0.00181	1.34774
athmpwskr_10_8_6	5,000	513	37,307.0	na	198.10	20.89219	39,512.0	51,214.9	90,726.9	33.8899	0.0109	1.33905	0.00153	1.34211
athmpwskr_10_8_5	5,000	513	29,845.0	na	159.20	19.42937	46,973.5	51,214.9	98,188.3	33.3639	0.0102	1.32129	0.00137	1.32402
athmpwskr_10_8_4	5,000	513	22,384.0	na	120.20	17.70517	54,435.0	51,214.9	105,649.0	32.8207	0.0093	1.28519	0.00134	1.28787

Table 6.9.6-23. Results for HEU broken metal content for air transportation

case name	^{235}U (g)	CH_2 (g)	H_2O (g)	Kaolite (g)	htox	Rc (cm)	H_2O (g)	Kao (g)	Shell (g)	Rs (cm)	nlf	k_{eff}	σ	$k_{eff} + 2\sigma$
athmpwskr_10_8_3	5,000	513	14,922.0	na	81.34	15.55766	61,896.4	51,214.9	113,111.0	32.2590	0.0084	1.21735	0.00195	1.22124
athmpwskr_10_8_2	5,000	513	7,461.5	na	42.39	12.55935	69,357.9	51,214.9	120,572.0	31.6769	0.0074	1.08329	0.00161	1.08651
athmpwskr_10_8_1	5,000	513	0.0	na	3.44	5.81446	76,819.4	51,214.9	128,034.0	31.0727	0.0059	0.69818	0.00115	0.70048
4,000g HEU 100% enrichment														
athmpwskr_8_8_11	4,000	513	74,614.0	na	491.10	26.22145	2,204.7	51,214.9	53,419.6	36.3003	0.0144	1.28173	0.00151	1.28476
athmpwskr_8_8_10	4,000	513	67,153.0	na	442.40	25.32609	9,666.2	51,214.9	60,881.0	35.8432	0.0139	1.29257	0.00121	1.29500
athmpwskr_8_8_9	4,000	513	59,691.0	na	393.80	24.36251	17,127.6	51,214.9	68,342.5	35.3741	0.0133	1.30185	0.00134	1.30454
athmpwskr_8_8_8	4,000	513	52,230.0	na	345.10	23.31600	24,589.1	51,214.9	75,803.9	34.8922	0.0126	1.30836	0.00146	1.31127
athmpwskr_8_8_7	4,000	513	44,768.0	na	296.40	22.16604	32,050.6	51,214.9	83,265.4	34.3966	0.0117	1.31084	0.00173	1.31430
athmpwskr_8_8_6	4,000	513	37,307.0	na	247.70	20.88250	39,512.0	51,214.9	90,726.9	33.8863	0.0110	1.30781	0.00164	1.31109
athmpwskr_8_8_5	4,000	513	29,845.0	na	199.00	19.41816	46,973.5	51,214.9	98,188.3	33.3601	0.0100	1.29559	0.00152	1.29863
athmpwskr_8_8_4	4,000	513	22,384.0	na	150.30	17.69166	54,435.0	51,214.9	105,649.0	32.8168	0.0093	1.26284	0.00131	1.26545
athmpwskr_8_8_3	4,000	513	14,922.0	na	101.60	15.54016	61,896.4	51,214.9	113,111.0	32.2549	0.0083	1.20481	0.00156	1.20793
athmpwskr_8_8_2	4,000	513	7,461.5	na	52.99	12.53248	69,357.9	51,214.9	120,572.0	31.6727	0.0075	1.08009	0.00169	1.08346
athmpwskr_8_8_1	4,000	513	0.0	na	4.30	5.68653	76,819.4	51,214.9	128,034.0	31.0683	0.0059	0.66987	0.00120	0.67228
3,000g HEU 100% enrichment														
athmpwskr_6_8_11	3,000	513	74,614.0	na	654.90	26.21530	2,204.7	51,214.9	53,419.6	36.2971	0.0143	1.19922	0.00120	1.20161
athmpwskr_6_8_10	3,000	513	67,153.0	na	589.90	25.31949	9,666.2	51,214.9	60,881.0	35.8399	0.0137	1.21615	0.00114	1.21844
athmpwskr_6_8_9	3,000	513	59,691.0	na	525.00	24.35538	17,127.6	51,214.9	68,342.5	35.3707	0.0133	1.23018	0.00144	1.23305
athmpwskr_6_8_8	3,000	513	52,230.0	na	460.10	23.30822	24,589.1	51,214.9	75,803.9	34.8887	0.0122	1.24414	0.00166	1.24745
athmpwskr_6_8_7	3,000	513	44,768.0	na	395.20	22.15743	32,050.6	51,214.9	83,265.4	34.3930	0.0114	1.25133	0.00159	1.25450
athmpwskr_6_8_6	3,000	513	37,307.0	na	330.30	20.87279	39,512.0	51,214.9	90,726.9	33.8826	0.0108	1.25789	0.00155	1.26100
athmpwskr_6_8_5	3,000	513	29,845.0	na	265.40	19.40693	46,973.5	51,214.9	98,188.3	33.3563	0.0101	1.25398	0.00171	1.25740
athmpwskr_6_8_4	3,000	513	22,384.0	na	200.40	17.67814	54,435.0	51,214.9	105,649.0	32.8129	0.0091	1.23478	0.00161	1.23799
athmpwskr_6_8_3	3,000	513	14,922.0	na	135.50	15.52262	61,896.4	51,214.9	113,111.0	32.2508	0.0085	1.18809	0.00160	1.19128

Table 6.9.6-23. Results for HEU broken metal content for air transportation

case name	^{235}U (g)	CH_2 (g)	H_2O (g)	Kaolite (g)	htox	Rc (cm)	H_2O (g)	Kao (g)	Shell (g)	Rs (cm)	nlf	k_{eff}	σ	$k_{eff} + 2\sigma$
athmpwskr_6_8_2	3,000	513	7,461.5	na	70.65	12.50549	69,357.9	51,214.9	120,572.0	31.6685	0.0073	1.06995	0.00163	1.07321
athmpwskr_6_8_1	3,000	513	0.0	na	5.74	5.55258	76,819.4	51,214.9	128,034.0	31.0639	0.0060	0.63966	0.00095	0.64155
2,000g HEU 100% enrichment														
athmpwskr_4_8_11	2,000	513	74,614.0	na	982.30	26.20914	2,204.7	51,214.9	53,419.6	36.2939	0.0140	1.06299	0.00106	1.06511
athmpwskr_4_8_10	2,000	513	67,153.0	na	884.90	25.31289	9,666.2	51,214.9	60,881.0	35.8366	0.0137	1.08184	0.00119	1.08421
athmpwskr_4_8_9	2,000	513	59,691.0	na	787.60	24.34825	17,127.6	51,214.9	68,342.5	35.3673	0.0130	1.10555	0.00127	1.10808
athmpwskr_4_8_8	2,000	513	52,230.0	na	690.20	23.30043	24,589.1	51,214.9	75,803.9	34.8852	0.0122	1.13134	0.00127	1.13387
athmpwskr_4_8_7	2,000	513	44,768.0	na	592.80	22.14881	32,050.6	51,214.9	83,265.4	34.3894	0.0116	1.15079	0.00124	1.15327
athmpwskr_4_8_6	2,000	513	37,307.0	na	495.40	20.86308	39,512.0	51,214.9	90,726.9	33.8789	0.0111	1.16711	0.00141	1.16993
athmpwskr_4_8_5	2,000	513	29,845.0	na	398.10	19.39569	46,973.5	51,214.9	98,188.3	33.3525	0.0098	1.17872	0.00167	1.18207
athmpwskr_4_8_4	2,000	513	22,384.0	na	300.70	17.66459	54,435.0	51,214.9	105,649.0	32.8089	0.0090	1.17375	0.00144	1.17664
athmpwskr_4_8_3	2,000	513	14,922.0	na	203.30	15.50504	61,896.4	51,214.9	113,111.0	32.2468	0.0083	1.14657	0.00155	1.14967
athmpwskr_4_8_2	2,000	513	7,461.5	na	105.90	12.47838	69,357.9	51,214.9	120,572.0	31.6643	0.0074	1.04637	0.00136	1.04909
athmpwskr_4_8_1	2,000	513	0.0	na	8.60	5.41183	76,819.4	51,214.9	128,034.0	31.0595	0.0061	0.60330	0.00119	0.60569
1,000g HEU 100% enrichment														
athmpwskr_2_8_11	1,000	513	74,614.0	na	1964.0	26.20298	2,204.7	51,214.9	53,419.6	36.2907	0.0141	0.78675	0.00095	0.78864
athmpwskr_2_8_10	1,000	513	67,153.0	na	1769.0	25.30629	9,666.2	51,214.9	60,881.0	35.8333	0.0133	0.81910	0.00090	0.82091
athmpwskr_2_8_9	1,000	513	59,691.0	na	1575.0	24.34111	17,127.6	51,214.9	68,342.5	35.3639	0.0128	0.84934	0.00112	0.85158
athmpwskr_2_8_8	1,000	513	52,230.0	na	1380.0	23.29264	24,589.1	51,214.9	75,803.9	34.8817	0.0122	0.88411	0.00113	0.88637
athmpwskr_2_8_7	1,000	513	44,768.0	na	1185.0	22.14018	32,050.6	51,214.9	83,265.4	34.3858	0.0114	0.92300	0.00099	0.92498
athmpwskr_2_8_6	1,000	513	37,307.0	na	990.90	20.85335	39,512.0	51,214.9	90,726.9	33.8752	0.0105	0.95883	0.00112	0.96106
athmpwskr_2_8_5	1,000	513	29,845.0	na	796.20	19.38444	46,973.5	51,214.9	98,188.3	33.3487	0.0099	0.99564	0.00140	0.99844
athmpwskr_2_8_4	1,000	513	22,384.0	na	601.40	17.65102	54,435.0	51,214.9	105,649.0	32.8050	0.0093	1.02565	0.00138	1.02840
athmpwskr_2_8_3	1,000	513	14,922.0	na	406.70	15.48743	61,896.4	51,214.9	113,111.0	32.2427	0.0080	1.03421	0.00144	1.03710

Table 6.9.6-23. Results for HEU broken metal content for air transportation

case name	^{235}U (g)	CH_2 (g)	H_2O (g)	Kaolite (g)	htox	Rc (cm)	H_2O (g)	Kao (g)	Shell (g)	Rs (cm)	nlf	k_{eff}	σ	$k_{eff} + 2\sigma$
athmpwskr_2_8_2	1,000	513	7,461.5	na	211.90	12.45115	69,357.9	51,214.9	120,572.0	31.6600	0.0071	0.98526	0.00145	0.98817
athmpwskr_2_8_1	1,000	513	0.0	na	17.21	5.26336	76,819.4	51,214.9	128,034.0	31.0551	0.0060	0.55815	0.00111	0.56036
35,000g HEU 20% enrichment														
athmpwskr_12_1_11	7,000	513	74,614.0	na	56.13	26.40867	2,204.7	51,214.9	53,419.6	36.3984	0.0146	1.30444	0.00132	1.30708
athmpwskr_12_1_10	7,000	513	67,153.0	na	50.57	25.52662	9,666.2	51,214.9	60,881.0	35.9438	0.0136	1.30153	0.00156	1.30465
athmpwskr_12_1_9	7,000	513	59,691.0	na	45.01	24.57901	17,127.6	51,214.9	68,342.5	35.4774	0.0131	1.29397	0.00141	1.29679
athmpwskr_12_1_8	7,000	513	52,230.0	na	39.44	23.55208	24,589.1	51,214.9	75,803.9	34.9983	0.0122	1.28559	0.00158	1.28875
athmpwskr_12_1_7	7,000	513	44,768.0	na	33.88	22.42682	32,050.6	51,214.9	83,265.4	34.5058	0.0115	1.27331	0.00148	1.27627
athmpwskr_12_1_6	7,000	513	37,307.0	na	28.31	21.17566	39,512.0	51,214.9	90,726.9	33.9988	0.0110	1.24850	0.00147	1.25144
athmpwskr_12_1_5	7,000	513	29,845.0	na	22.75	19.75607	46,973.5	51,214.9	98,188.3	33.4762	0.0100	1.21970	0.00148	1.22267
athmpwskr_12_1_4	7,000	513	22,384.0	na	17.18	18.09653	54,435.0	51,214.9	105,649.0	32.9367	0.0091	1.17002	0.00139	1.17279
athmpwskr_12_1_3	7,000	513	14,922.0	na	11.62	16.05945	61,896.4	51,214.9	113,111.0	32.3790	0.0081	1.09036	0.00129	1.09294
athmpwskr_12_1_2	7,000	513	7,461.5	na	6.06	13.30882	69,357.9	51,214.9	120,572.0	31.8014	0.0072	0.95817	0.00131	0.96080
athmpwskr_12_1_1	7,000	513	0.0	na	0.49	8.30498	76,819.4	51,214.9	128,034.0	31.2020	0.0058	0.65983	0.00100	0.66184
30,000g HEU 20% enrichment														
athmpwskr_11_1_11	6,000	513	74,614.0	na	65.49	26.37861	2,204.7	51,214.9	53,419.6	36.3826	0.0145	1.28729	0.00151	1.29031
athmpwskr_11_1_10	6,000	513	67,153.0	na	59.00	25.49445	9,666.2	51,214.9	60,881.0	35.9276	0.0141	1.28153	0.00149	1.28451
athmpwskr_11_1_9	6,000	513	59,691.0	na	52.51	24.54430	17,127.6	51,214.9	68,342.5	35.4607	0.0128	1.27980	0.00155	1.28290
athmpwskr_11_1_8	6,000	513	52,230.0	na	46.02	23.51428	24,589.1	51,214.9	75,803.9	34.9812	0.0123	1.27508	0.00136	1.27780
athmpwskr_11_1_7	6,000	513	44,768.0	na	39.52	22.38512	32,050.6	51,214.9	83,265.4	34.4882	0.0118	1.26109	0.00154	1.26418
athmpwskr_11_1_6	6,000	513	37,307.0	na	33.03	21.12886	39,512.0	51,214.9	90,726.9	33.9807	0.0109	1.24331	0.00126	1.24582
athmpwskr_11_1_5	6,000	513	29,845.0	na	26.54	19.70228	46,973.5	51,214.9	98,188.3	33.4575	0.0102	1.20965	0.00156	1.21277
athmpwskr_11_1_4	6,000	513	22,384.0	na	20.05	18.03237	54,435.0	51,214.9	105,649.0	32.9174	0.0090	1.16727	0.00150	1.17026
athmpwskr_11_1_3	6,000	513	14,922.0	na	13.56	15.97785	61,896.4	51,214.9	113,111.0	32.3590	0.0082	1.09306	0.00155	1.09615

Table 6.9.6-23. Results for HEU broken metal content for air transportation

case name	^{235}U (g)	CH_2 (g)	H_2O (g)	Kaolite (g)	htox	Rc (cm)	H_2O (g)	Kao (g)	Shell (g)	Rs (cm)	nlf	k_{eff}	σ	$k_{eff} + 2\sigma$
athmpwskr_11_1_2	6,000	513	7,461.5	na	7.07	13.18955	69,357.9	51,214.9	120,572.0	31.7807	0.0072	0.95881	0.00135	0.96150
athmpwskr_11_1_1	6,000	513	0.0	na	0.57	7.98959	76,819.4	51,214.9	128,034.0	31.1805	0.0058	0.64202	0.00097	0.64395
25,000g HEU 20% enrichment														
athmpwskr_10_1_11	5,000	513	74,614.0	na	78.59	26.34849	2,204.7	51,214.9	53,419.6	36.3668	0.0147	1.25666	0.00148	1.25962
athmpwskr_10_1_10	5,000	513	67,153.0	na	70.80	25.46220	9,666.2	51,214.9	60,881.0	35.9114	0.0137	1.25683	0.00146	1.25975
athmpwskr_10_1_9	5,000	513	59,691.0	na	63.01	24.50950	17,127.6	51,214.9	68,342.5	35.4441	0.0129	1.25832	0.00126	1.26084
athmpwskr_10_1_8	5,000	513	52,230.0	na	55.22	23.47635	24,589.1	51,214.9	75,803.9	34.9641	0.0124	1.25363	0.00147	1.25658
athmpwskr_10_1_7	5,000	513	44,768.0	na	47.43	22.34325	32,050.6	51,214.9	83,265.4	34.4706	0.0113	1.24695	0.00140	1.24974
athmpwskr_10_1_6	5,000	513	37,307.0	na	39.64	21.08185	39,512.0	51,214.9	90,726.9	33.9625	0.0106	1.23226	0.00154	1.23533
athmpwskr_10_1_5	5,000	513	29,845.0	na	31.85	19.64819	46,973.5	51,214.9	98,188.3	33.4388	0.0100	1.20506	0.00163	1.20832
athmpwskr_10_1_4	5,000	513	22,384.0	na	24.06	17.96775	54,435.0	51,214.9	105,649.0	32.8981	0.0093	1.16366	0.00132	1.16630
athmpwskr_10_1_3	5,000	513	14,922.0	na	16.27	15.89541	61,896.4	51,214.9	113,111.0	32.3390	0.0082	1.09217	0.00162	1.09540
athmpwskr_10_1_2	5,000	513	7,461.5	na	8.48	13.06807	69,357.9	51,214.9	120,572.0	31.7599	0.0070	0.95867	0.00128	0.96122
athmpwskr_10_1_1	5,000	513	0.0	na	0.69	7.64711	76,819.4	51,214.9	128,034.0	31.1589	0.0061	0.62222	0.00118	0.62457
20,000g HEU 20% enrichment														
athmpwskr_8_1_11	4,000	513	74,614.0	na	98.24	26.31829	2,204.7	51,214.9	53,419.6	36.3510	0.0145	1.21178	0.00126	1.21429
athmpwskr_8_1_10	4,000	513	67,153.0	na	88.50	25.42986	9,666.2	51,214.9	60,881.0	35.8951	0.0138	1.21697	0.00145	1.21987
athmpwskr_8_1_9	4,000	513	59,691.0	na	78.76	24.47459	17,127.6	51,214.9	68,342.5	35.4274	0.0129	1.22166	0.00110	1.22386
athmpwskr_8_1_8	4,000	513	52,230.0	na	69.02	23.43829	24,589.1	51,214.9	75,803.9	34.9470	0.0122	1.22547	0.00134	1.22815
athmpwskr_8_1_7	4,000	513	44,768.0	na	59.29	22.30123	32,050.6	51,214.9	83,265.4	34.4530	0.0118	1.22053	0.00127	1.22307
athmpwskr_8_1_6	4,000	513	37,307.0	na	49.55	21.03464	39,512.0	51,214.9	90,726.9	33.9444	0.0107	1.21326	0.00137	1.21600
athmpwskr_8_1_5	4,000	513	29,845.0	na	39.81	19.59380	46,973.5	51,214.9	98,188.3	33.4200	0.0102	1.19193	0.00131	1.19455
athmpwskr_8_1_4	4,000	513	22,384.0	na	30.07	17.90266	54,435.0	51,214.9	105,649.0	32.8787	0.0090	1.15762	0.00164	1.16090
athmpwskr_8_1_3	4,000	513	14,922.0	na	20.34	15.81211	61,896.4	51,214.9	113,111.0	32.3190	0.0082	1.08959	0.00153	1.09264

Table 6.9.6-23. Results for HEU broken metal content for air transportation

case name	^{235}U (g)	CH_2 (g)	H_2O (g)	Kaolite (g)	htox	Rc (cm)	H_2O (g)	Kao (g)	Shell (g)	Rs (cm)	nlf	k_{eff}	σ	$k_{eff} + 2\sigma$
athmpwskr_8_1_2	4,000	513	7,461.5	na	10.60	12.94430	69,357.9	51,214.9	120,572.0	31.7392	0.0074	0.96034	0.00139	0.96313
athmpwskr_8_1_1	4,000	513	0.0	na	0.86	7.27085	76,819.4	51,214.9	128,034.0	31.1374	0.0058	0.59785	0.00112	0.60008
15,000g HEU 20% enrichment														
athmpwskr_6_1_11	3,000	513	74,614.0	na	130.90	26.28803	2,204.7	51,214.9	53,419.6	36.3351	0.0142	1.14239	0.00134	1.14507
athmpwskr_6_1_10	3,000	513	67,153.0	na	118.00	25.39744	9,666.2	51,214.9	60,881.0	35.8789	0.0137	1.15284	0.00120	1.15523
athmpwskr_6_1_9	3,000	513	59,691.0	na	105.00	24.43959	17,127.6	51,214.9	68,342.5	35.4107	0.0131	1.16521	0.00121	1.16764
athmpwskr_6_1_8	3,000	513	52,230.0	na	92.03	23.40012	24,589.1	51,214.9	75,803.9	34.9298	0.0120	1.17283	0.00145	1.17574
athmpwskr_6_1_7	3,000	513	44,768.0	na	79.05	22.25905	32,050.6	51,214.9	83,265.4	34.4353	0.0113	1.18127	0.00164	1.18456
athmpwskr_6_1_6	3,000	513	37,307.0	na	66.06	20.98721	39,512.0	51,214.9	90,726.9	33.9262	0.0109	1.17504	0.00155	1.17814
athmpwskr_6_1_5	3,000	513	29,845.0	na	53.08	19.53911	46,973.5	51,214.9	98,188.3	33.4013	0.0100	1.16750	0.00146	1.17042
athmpwskr_6_1_4	3,000	513	22,384.0	na	40.10	17.83709	54,435.0	51,214.9	105,649.0	32.8594	0.0091	1.13986	0.00148	1.14283
athmpwskr_6_1_3	3,000	513	14,922.0	na	27.11	15.72792	61,896.4	51,214.9	113,111.0	32.2989	0.0082	1.08027	0.00151	1.08330
athmpwskr_6_1_2	3,000	513	7,461.5	na	14.13	12.81811	69,357.9	51,214.9	120,572.0	31.7184	0.0071	0.95952	0.00150	0.96252
athmpwskr_6_1_1	3,000	513	0.0	na	1.15	6.85101	76,819.4	51,214.9	128,034.0	31.1157	0.0058	0.57184	0.00092	0.57368
6,000g HEU 20% enrichment														
athmpwskr_4_1_11	2,000	513	74,614.0	na	196.40	26.25769	2,204.7	51,214.9	53,419.6	36.3193	0.0142	1.01841	0.00110	1.02061
athmpwskr_4_1_10	2,000	513	67,153.0	na	177.00	25.36494	9,666.2	51,214.9	60,881.0	35.8626	0.0138	1.04003	0.00121	1.04246
athmpwskr_4_1_9	2,000	513	59,691.0	na	157.50	24.40448	17,127.6	51,214.9	68,342.5	35.3940	0.0129	1.05800	0.00096	1.05992
athmpwskr_4_1_8	2,000	513	52,230.0	na	138.00	23.36182	24,589.1	51,214.9	75,803.9	34.9126	0.0121	1.07916	0.00129	1.08174
athmpwskr_4_1_7	2,000	513	44,768.0	na	118.50	22.21671	32,050.6	51,214.9	83,265.4	34.4176	0.0116	1.09162	0.00115	1.09393
athmpwskr_4_1_6	2,000	513	37,307.0	na	99.10	20.93956	39,512.0	51,214.9	90,726.9	33.9080	0.0107	1.10489	0.00122	1.10732
athmpwskr_4_1_5	2,000	513	29,845.0	na	79.62	19.48411	46,973.5	51,214.9	98,188.3	33.3825	0.0101	1.10960	0.00160	1.11281
athmpwskr_4_1_4	2,000	513	22,384.0	na	60.15	17.77103	54,435.0	51,214.9	105,649.0	32.8400	0.0091	1.09428	0.00143	1.09713
athmpwskr_4_1_3	2,000	513	14,922.0	na	40.67	15.64281	61,896.4	51,214.9	113,111.0	32.2789	0.0081	1.05881	0.00155	1.06191

Table 6.9.6-23. Results for HEU broken metal content for air transportation

case name	^{235}U (g)	CH_2 (g)	H_2O (g)	Kaolite (g)	htox	Rc (cm)	H_2O (g)	Kao (g)	Shell (g)	Rs (cm)	nlf	k_{eff}	σ	$k_{eff} + 2\sigma$
athmpwskr_4_1_2	2,000	513	7,461.5	na	21.20	12.68939	69,357.9	51,214.9	120,572.0	31.6976	0.0072	0.95084	0.00134	0.95353
athmpwskr_4_1_1	2,000	513	0.0	na	1.72	6.37224	76,819.4	51,214.9	128,034.0	31.0941	0.0059	0.54033	0.00105	0.54242
5,000g HEU 20% enrichment														
athmpwskr_2_1_11	1,000	513	74,614.0	na	392.90	26.22729	2,204.7	51,214.9	53,419.6	36.3034	0.0139	0.76722	0.00089	0.76900
athmpwskr_2_1_10	1,000	513	67,153.0	na	353.90	25.33235	9,666.2	51,214.9	60,881.0	35.8463	0.0132	0.79602	0.00086	0.79774
athmpwskr_2_1_9	1,000	513	59,691.0	na	315.00	24.36928	17,127.6	51,214.9	68,342.5	35.3773	0.0127	0.82462	0.00105	0.82673
athmpwskr_2_1_8	1,000	513	52,230.0	na	276.00	23.32339	24,589.1	51,214.9	75,803.9	34.8954	0.0120	0.85817	0.00098	0.86014
athmpwskr_2_1_7	1,000	513	44,768.0	na	237.10	22.17421	32,050.6	51,214.9	83,265.4	34.4000	0.0112	0.88947	0.00112	0.89172
athmpwskr_2_1_6	1,000	513	37,307.0	na	198.10	20.89170	39,512.0	51,214.9	90,726.9	33.8898	0.0104	0.92204	0.00129	0.92462
athmpwskr_2_1_5	1,000	513	29,845.0	na	159.20	19.42880	46,973.5	51,214.9	98,188.3	33.3637	0.0098	0.95114	0.00115	0.95345
athmpwskr_2_1_4	1,000	513	22,384.0	na	120.20	17.70449	54,435.0	51,214.9	105,649.0	32.8205	0.0092	0.97244	0.00110	0.97465
athmpwskr_2_1_3	1,000	513	14,922.0	na	81.34	15.55677	61,896.4	51,214.9	113,111.0	32.2588	0.0083	0.97325	0.00168	0.97660
athmpwskr_2_1_2	1,000	513	7,461.5	na	42.39	12.55800	69,357.9	51,214.9	120,572.0	31.6767	0.0073	0.91381	0.00132	0.91644
athmpwskr_2_1_1	1,000	513	0.0	na	3.44	5.80813	76,819.4	51,214.9	128,034.0	31.0724	0.0059	0.50206	0.00118	0.50441
4,500g HEU 20% enrichment														
athm2pwskr_5_1_11	900	513	74,614.0	na	436.60	26.2243	2,204.7	51,214.9	53,419.6	36.3018	0.0138	0.72669	0.00082	0.72832
athm2pwskr_5_1_10	900	513	67,153.0	na	393.30	25.3291	9,666.2	51,214.9	60,881.0	35.8447	0.0131	0.75662	0.00084	0.75830
athm2pwskr_5_1_9	900	513	59,691.0	na	350.00	24.3658	17,127.6	51,214.9	68,342.5	35.3756	0.0127	0.78606	0.00091	0.78788
athm2pwskr_5_1_8	900	513	52,230.0	na	306.70	23.3195	24,589.1	51,214.9	75,803.9	34.8937	0.0120	0.82194	0.00094	0.82382
athm2pwskr_5_1_7	900	513	44,768.0	na	263.40	22.1700	32,050.6	51,214.9	83,265.4	34.3982	0.0112	0.85385	0.00090	0.85565
athm2pwskr_5_1_6	900	513	37,307.0	na	220.20	20.8869	39,512.0	51,214.9	90,726.9	33.8879	0.0109	0.88893	0.00106	0.89105
athm2pwskr_5_1_5	900	513	29,845.0	na	176.90	19.4233	46,973.5	51,214.9	98,188.3	33.3618	0.0098	0.92125	0.00114	0.92352
athm2pwskr_5_1_4	900	513	22,384.0	na	133.60	17.6978	54,435.0	51,214.9	105,649.0	32.8186	0.0088	0.94828	0.00112	0.95052
athm2pwskr_5_1_3	900	513	14,922.0	na	90.38	15.5481	61,896.4	51,214.9	113,111.0	32.2567	0.0081	0.95553	0.00128	0.95810

Table 6.9.6-23. Results for HEU broken metal content for air transportation

case name	^{235}U (g)	CH_2 (g)	H_2O (g)	Kaolite (g)	htox	Rc (cm)	H_2O (g)	Kao (g)	Shell (g)	Rs (cm)	nlf	k_{eff}	σ	$k_{eff} + 2\sigma$
athm2pwskr_5_1_2	900	513	7,461.5	na	47.10	12.5447	69,357.9	51,214.9	120,572.0	31.6746	0.0072	0.90112	0.00143	0.90398
athm2pwskr_5_1_1	900	513	0.0	na	3.82	5.7454	76,819.4	51,214.9	128,034.0	31.0703	0.0060	0.49483	0.00115	0.49712
4,000g HEU 20% enrichment														
athm2pwskr_4_1_11	800	513	74,614.0	na	491.10	26.2212	2,204.7	51,214.9	53,419.6	36.3002	0.0139	0.68165	0.00072	0.68308
athm2pwskr_4_1_10	800	513	67,153.0	na	442.40	25.3258	9,666.2	51,214.9	60,881.0	35.8430	0.0131	0.71140	0.00080	0.71299
athm2pwskr_4_1_9	800	513	59,691.0	na	393.80	24.3622	17,127.6	51,214.9	68,342.5	35.3739	0.0124	0.74377	0.00085	0.74547
athm2pwskr_4_1_8	800	513	52,230.0	na	345.10	23.3157	24,589.1	51,214.9	75,803.9	34.8920	0.0120	0.77769	0.00081	0.77931
athm2pwskr_4_1_7	800	513	44,768.0	na	296.40	22.1657	32,050.6	51,214.9	83,265.4	34.3964	0.0116	0.81374	0.00077	0.81528
athm2pwskr_4_1_6	800	513	37,307.0	na	247.70	20.8821	39,512.0	51,214.9	90,726.9	33.8861	0.0106	0.85125	0.00097	0.85319
athm2pwskr_4_1_5	800	513	29,845.0	na	199.00	19.4177	46,973.5	51,214.9	98,188.3	33.3599	0.0098	0.88803	0.00130	0.89063
athm2pwskr_4_1_4	800	513	22,384.0	na	150.30	17.6911	54,435.0	51,214.9	105,649.0	32.8166	0.0089	0.91753	0.00124	0.92001
athm2pwskr_4_1_3	800	513	14,922.0	na	101.60	15.5395	61,896.4	51,214.9	113,111.0	32.2547	0.0081	0.93454	0.00150	0.93755
athm2pwskr_4_1_2	800	513	7,461.5	na	52.99	12.5314	69,357.9	51,214.9	120,572.0	31.6725	0.0071	0.89101	0.00130	0.89362
athm2pwskr_4_1_1	800	513	0.0	na	4.30	5.6812	76,819.4	51,214.9	128,034.0	31.0681	0.0059	0.49028	0.00108	0.49244
3,500g HEU 20% enrichment														
athm2pwskr_3_1_11	700	513	74,614.0	na	561.30	26.2182	2,204.7	51,214.9	53,419.6	36.2986	0.0139	0.63180	0.00067	0.63314
athm2pwskr_3_1_10	700	513	67,153.0	na	505.70	25.3226	9,666.2	51,214.9	60,881.0	35.8414	0.0131	0.66242	0.00078	0.66397
athm2pwskr_3_1_9	700	513	59,691.0	na	450.00	24.3587	17,127.6	51,214.9	68,342.5	35.3722	0.0126	0.69361	0.00081	0.69524
athm2pwskr_3_1_8	700	513	52,230.0	na	394.40	23.3118	24,589.1	51,214.9	75,803.9	34.8903	0.0120	0.72803	0.00083	0.72969
athm2pwskr_3_1_7	700	513	44,768.0	na	338.70	22.1614	32,050.6	51,214.9	83,265.4	34.3946	0.0112	0.76553	0.00089	0.76731
athm2pwskr_3_1_6	700	513	37,307.0	na	283.10	20.8773	39,512.0	51,214.9	90,726.9	33.8843	0.0104	0.80365	0.00089	0.80542
athm2pwskr_3_1_5	700	513	29,845.0	na	227.40	19.4122	46,973.5	51,214.9	98,188.3	33.3581	0.0100	0.84452	0.00099	0.84649
athm2pwskr_3_1_4	700	513	22,384.0	na	171.80	17.6844	54,435.0	51,214.9	105,649.0	32.8147	0.0091	0.88253	0.00104	0.88461
athm2pwskr_3_1_3	700	513	14,922.0	na	116.20	15.5308	61,896.4	51,214.9	113,111.0	32.2527	0.0081	0.90492	0.00126	0.90744

Table 6.9.6-23. Results for HEU broken metal content for air transportation

case name	^{235}U (g)	CH_2 (g)	H_2O (g)	Kaolite (g)	htox	Rc (cm)	H_2O (g)	Kao (g)	Shell (g)	Rs (cm)	nlf	k_{eff}	σ	$k_{eff} + 2\sigma$
athm2pwskr_3_1_2	700	513	7,461.5	na	60.56	12.5180	69,357.9	51,214.9	120,572.0	31.6704	0.0073	0.87397	0.00159	0.87716
athm2pwskr_3_1_1	700	513	0.0	na	4.92	5.6156	76,819.4	51,214.9	128,034.0	31.0659	0.0059	0.48609	0.00103	0.48815
3,000g HEU 20% enrichment														
athm2pwskr_2_1_11	600	513	74,614.0	na	654.90	26.2151	2,204.7	51,214.9	53,419.6	36.2970	0.0140	0.57444	0.00056	0.57557
athm2pwskr_2_1_10	600	513	67,153.0	na	589.90	25.3193	9,666.2	51,214.9	60,881.0	35.8398	0.0132	0.60498	0.00063	0.60623
athm2pwskr_2_1_9	600	513	59,691.0	na	525.00	24.3552	17,127.6	51,214.9	68,342.5	35.3706	0.0128	0.63499	0.00090	0.63678
athm2pwskr_2_1_8	600	513	52,230.0	na	460.10	23.3080	24,589.1	51,214.9	75,803.9	34.8886	0.0121	0.66999	0.00083	0.67164
athm2pwskr_2_1_7	600	513	44,768.0	na	395.20	22.1572	32,050.6	51,214.9	83,265.4	34.3929	0.0114	0.70932	0.00087	0.71106
athm2pwskr_2_1_6	600	513	37,307.0	na	330.30	20.8725	39,512.0	51,214.9	90,726.9	33.8825	0.0108	0.75066	0.00084	0.75234
athm2pwskr_2_1_5	600	513	29,845.0	na	265.40	19.4066	46,973.5	51,214.9	98,188.3	33.3562	0.0099	0.79472	0.00098	0.79669
athm2pwskr_2_1_4	600	513	22,384.0	na	200.40	17.6777	54,435.0	51,214.9	105,649.0	32.8128	0.0088	0.83915	0.00127	0.84169
athm2pwskr_2_1_3	600	513	14,922.0	na	135.50	15.5221	61,896.4	51,214.9	113,111.0	32.2507	0.0081	0.86959	0.00135	0.87228
athm2pwskr_2_1_2	600	513	7,461.5	na	70.65	12.5047	69,357.9	51,214.9	120,572.0	31.6684	0.0073	0.85284	0.00128	0.85540
athm2pwskr_2_1_1	600	513	0.0	na	5.74	5.5484	76,819.4	51,214.9	128,034.0	31.0638	0.0060	0.48105	0.00114	0.48333
compromised package, homogenous core (HEU broken metal, polyethylene, and Kaolite), HEU shell, 20.0 cm water reflector														
17,500 g HEU														
athmpkmr_6_1_1_11	3,000	513	76,819.4	51,214.9	134.82	39.13343	na	na	500.0	39.1404	0.0305	0.82671	0.00116	0.82904
athmpkmr_6_1_1_10	3,000	513	69,357.9	51,214.9	121.83	38.49290	na	na	500.0	38.5001	0.0316	0.81988	0.00107	0.82201
athmpkmr_6_1_1_9	3,000	513	61,896.4	51,214.9	108.85	37.83031	na	na	500.0	37.8377	0.0331	0.80737	0.00168	0.81074
athmpkmr_6_1_1_8	3,000	513	54,435.0	51,214.9	95.87	37.14367	na	na	500.0	37.1514	0.0350	0.78879	0.00127	0.79133
athmpkmr_6_1_1_7	3,000	513	46,973.5	51,214.9	82.88	36.43065	na	na	500.0	36.4386	0.0381	0.76393	0.00123	0.76638
athmpkmr_6_1_1_6	3,000	513	39,512.0	51,214.9	69.90	35.68857	na	na	500.0	35.6969	0.0399	0.73508	0.00126	0.73759
athmpkmr_6_1_1_5	3,000	513	32,050.6	51,214.9	56.92	34.91428	na	na	500.0	34.9230	0.0435	0.69610	0.00112	0.69835
athmpkmr_6_1_1_4	3,000	513	24,589.1	51,214.9	43.93	34.10403	na	na	500.0	34.1131	0.0465	0.64833	0.00105	0.65043
athmpkmr_6_1_1_3	3,000	513	17,127.6	51,214.9	30.95	33.25334	na	na	500.0	33.2629	0.0515	0.58834	0.00116	0.59066

Table 6.9.6-23. Results for HEU broken metal content for air transportation

case name	^{235}U (g)	CH_2 (g)	H_2O (g)	Kaolite (g)	htox	Rc (cm)	H_2O (g)	Kao (g)	Shell (g)	Rs (cm)	nlf	k_{eff}	σ	$k_{eff} + 2\sigma$
athmpkmr_6_1_1_2	3,000	513	9,666.2	51,214.9	17.97	32.35674	na	na	500.0	32.3668	0.0567	0.51967	0.00102	0.52172
athmpkmr_6_1_1_1	3,000	513	2,204.7	51,214.9	4.98	31.40750	na	na	500.0	31.4182	0.0648	0.44668	0.00102	0.44873
17,500 g HEU														
athmpkmr_5_2_1_11	2,500	513	76,819.4	51,214.9	161.78	39.12659	na	na	1,000.0	39.1404	0.0308	0.81054	0.00107	0.81268
athmpkmr_5_2_1_10	2,500	513	69,357.9	51,214.9	146.20	38.48583	na	na	1,000.0	38.5001	0.0321	0.80744	0.00111	0.80966
athmpkmr_5_2_1_9	2,500	513	61,896.4	51,214.9	130.62	37.82300	na	na	1,000.0	37.8377	0.0337	0.79514	0.00117	0.79749
athmpkmr_5_2_1_8	2,500	513	54,435.0	51,214.9	115.04	37.13608	na	na	1,000.0	37.1514	0.0354	0.78193	0.00117	0.78426
athmpkmr_5_2_1_7	2,500	513	46,973.5	51,214.9	99.46	36.42276	na	na	1,000.0	36.4386	0.0380	0.76122	0.00146	0.76414
athmpkmr_5_2_1_6	2,500	513	39,512.0	51,214.9	83.88	35.68035	na	na	1,000.0	35.6969	0.0402	0.73648	0.00125	0.73898
athmpkmr_5_2_1_5	2,500	513	32,050.6	51,214.9	68.30	34.90569	na	na	1,000.0	34.9230	0.0432	0.69977	0.00121	0.70218
athmpkmr_5_2_1_4	2,500	513	24,589.1	51,214.9	52.72	34.09503	na	na	1,000.0	34.1131	0.0465	0.65426	0.00101	0.65627
athmpkmr_5_2_1_3	2,500	513	17,127.6	51,214.9	37.14	33.24387	na	na	1,000.0	33.2629	0.0508	0.59580	0.00122	0.59824
athmpkmr_5_2_1_2	2,500	513	9,666.2	51,214.9	21.56	32.34674	na	na	1,000.0	32.3668	0.0557	0.52943	0.00102	0.53147
athmpkmr_5_2_1_1	2,500	513	2,204.7	51,214.9	5.98	31.39688	na	na	1,000.0	31.4182	0.0640	0.45232	0.00099	0.45429
17,500 g HEU														
athmpkmr_4_3_1_11	2,000	513	76,819.4	51,214.9	202.23	39.11975	na	na	1,500.0	39.1404	0.0315	0.78278	0.00117	0.78512
athmpkmr_4_3_1_10	2,000	513	69,357.9	51,214.9	182.75	38.47876	na	na	1,500.0	38.5001	0.0322	0.78073	0.00097	0.78267
athmpkmr_4_3_1_9	2,000	513	61,896.4	51,214.9	163.28	37.81568	na	na	1,500.0	37.8377	0.0341	0.77618	0.00112	0.77842
athmpkmr_4_3_1_8	2,000	513	54,435.0	51,214.9	143.80	37.12848	na	na	1,500.0	37.1514	0.0359	0.76473	0.00117	0.76706
athmpkmr_4_3_1_7	2,000	513	46,973.5	51,214.9	124.33	36.41487	na	na	1,500.0	36.4386	0.0381	0.74931	0.00113	0.75157
athmpkmr_4_3_1_6	2,000	513	39,512.0	51,214.9	104.85	35.67213	na	na	1,500.0	35.6969	0.0401	0.72799	0.00111	0.73021
athmpkmr_4_3_1_5	2,000	513	32,050.6	51,214.9	85.38	34.89710	na	na	1,500.0	34.9230	0.0432	0.69825	0.00112	0.70049
athmpkmr_4_3_1_4	2,000	513	24,589.1	51,214.9	65.90	34.08602	na	na	1,500.0	34.1131	0.0461	0.65621	0.00111	0.65843
athmpkmr_4_3_1_3	2,000	513	17,127.6	51,214.9	46.43	33.23440	na	na	1,500.0	33.2629	0.0506	0.60270	0.00125	0.60519

Table 6.9.6-23. Results for HEU broken metal content for air transportation

case name	^{235}U (g)	CH_2 (g)	H_2O (g)	Kaolite (g)	htox	Rc (cm)	H_2O (g)	Kao (g)	Shell (g)	Rs (cm)	nlf	k_{eff}	σ	$k_{eff} + 2\sigma$
athmpkmr_4_3_1_2	2,000	513	9,666.2	51,214.9	26.95	32.33673	na	na	1,500.0	32.3668	0.0552	0.53659	0.00100	0.53859
athmpkmr_4_3_1_1	2,000	513	2,204.7	51,214.9	7.48	31.38626	na	na	1,500.0	31.4182	0.0626	0.46023	0.00105	0.46233
17,500 g HEU														
athmpkmr_3_4_1_11	1,500	513	76,819.4	51,214.9	269.63	39.11291	na	na	2,000.0	39.1404	0.0323	0.74454	0.00111	0.74677
athmpkmr_3_4_1_10	1,500	513	69,357.9	51,214.9	243.67	38.47169	na	na	2,000.0	38.5001	0.0332	0.74408	0.00106	0.74619
athmpkmr_3_4_1_9	1,500	513	61,896.4	51,214.9	217.70	37.80835	na	na	2,000.0	37.8377	0.0348	0.74205	0.00101	0.74407
athmpkmr_3_4_1_8	1,500	513	54,435.0	51,214.9	191.73	37.12089	na	na	2,000.0	37.1514	0.0366	0.73801	0.00109	0.74020
athmpkmr_3_4_1_7	1,500	513	46,973.5	51,214.9	165.77	36.40697	na	na	2,000.0	36.4386	0.0381	0.72624	0.00099	0.72823
athmpkmr_3_4_1_6	1,500	513	39,512.0	51,214.9	139.80	35.66390	na	na	2,000.0	35.6969	0.0400	0.71184	0.00109	0.71402
athmpkmr_3_4_1_5	1,500	513	32,050.6	51,214.9	113.83	34.88850	na	na	2,000.0	34.9230	0.0422	0.68601	0.00108	0.68817
athmpkmr_3_4_1_4	1,500	513	24,589.1	51,214.9	87.87	34.07701	na	na	2,000.0	34.1131	0.0460	0.65133	0.00126	0.65385
athmpkmr_3_4_1_3	1,500	513	17,127.6	51,214.9	61.90	33.22491	na	na	2,000.0	33.2629	0.0500	0.60077	0.00107	0.60290
athmpkmr_3_4_1_2	1,500	513	9,666.2	51,214.9	35.93	32.32672	na	na	2,000.0	32.3668	0.0547	0.54059	0.00105	0.54270
athmpkmr_3_4_1_1	1,500	513	2,204.7	51,214.9	9.97	31.37562	na	na	2,000.0	31.4182	0.0615	0.46420	0.00093	0.46605
17,500 g HEU														
athmpkmr_2_5_1_11	1,000	513	76,819.4	51,214.9	404.45	39.10606	na	na	2,500.0	39.1404	0.0330	0.68332	0.00087	0.68506
athmpkmr_2_5_1_10	1,000	513	69,357.9	51,214.9	365.50	38.46461	na	na	2,500.0	38.5001	0.0338	0.68976	0.00107	0.69191
athmpkmr_2_5_1_9	1,000	513	61,896.4	51,214.9	326.55	37.80103	na	na	2,500.0	37.8377	0.0350	0.69285	0.00095	0.69475
athmpkmr_2_5_1_8	1,000	513	54,435.0	51,214.9	287.60	37.11329	na	na	2,500.0	37.1514	0.0365	0.69207	0.00120	0.69447
athmpkmr_2_5_1_7	1,000	513	46,973.5	51,214.9	248.65	36.39907	na	na	2,500.0	36.4386	0.0383	0.69082	0.00098	0.69278
athmpkmr_2_5_1_6	1,000	513	39,512.0	51,214.9	209.70	35.65566	na	na	2,500.0	35.6969	0.0399	0.68238	0.00101	0.68440
athmpkmr_2_5_1_5	1,000	513	32,050.6	51,214.9	170.75	34.87989	na	na	2,500.0	34.9230	0.0429	0.66578	0.00110	0.66798
athmpkmr_2_5_1_4	1,000	513	24,589.1	51,214.9	131.80	34.06799	na	na	2,500.0	34.1131	0.0457	0.63892	0.00106	0.64104
athmpkmr_2_5_1_3	1,000	513	17,127.6	51,214.9	92.85	33.21543	na	na	2,500.0	33.2629	0.0491	0.59774	0.00102	0.59979

Table 6.9.6-23. Results for HEU broken metal content for air transportation

case name	^{235}U (g)	CH_2 (g)	H_2O (g)	Kaolite (g)	htox	Rc (cm)	H_2O (g)	Kao (g)	Shell (g)	Rs (cm)	nlf	k_{eff}	σ	$k_{eff} + 2\sigma$
athmpkmr_2_5_1_2	1,000	513	9,666.2	51,214.9	53.90	32.31670	na	na	2,500.0	32.3668	0.0535	0.54129	0.00121	0.54371
athmpkmr_2_5_1_1	1,000	513	2,204.7	51,214.9	14.95	31.36499	na	na	2,500.0	31.4182	0.0599	0.46802	0.00098	0.46999
17,500 g HEU														
athmpkmr_1_6_1_11	500	513	76,819.4	51,214.9	808.90	39.09921	na	na	3,000.0	39.1404	0.0342	0.59914	0.00103	0.60120
athmpkmr_1_6_1_10	500	513	69,357.9	51,214.9	731.00	38.45754	na	na	3,000.0	38.5001	0.0350	0.60911	0.00091	0.61092
athmpkmr_1_6_1_9	500	513	61,896.4	51,214.9	653.10	37.79370	na	na	3,000.0	37.8377	0.0362	0.61744	0.00087	0.61919
athmpkmr_1_6_1_8	500	513	54,435.0	51,214.9	575.20	37.10569	na	na	3,000.0	37.1514	0.0375	0.62582	0.00099	0.62780
athmpkmr_1_6_1_7	500	513	46,973.5	51,214.9	497.30	36.39117	na	na	3,000.0	36.4386	0.0389	0.63123	0.00105	0.63332
athmpkmr_1_6_1_6	500	513	39,512.0	51,214.9	419.40	35.64743	na	na	3,000.0	35.6969	0.0407	0.63132	0.00115	0.63362
athmpkmr_1_6_1_5	500	513	32,050.6	51,214.9	341.50	34.87129	na	na	3,000.0	34.9230	0.0427	0.62606	0.00126	0.62858
athmpkmr_1_6_1_4	500	513	24,589.1	51,214.9	263.60	34.05897	na	na	3,000.0	34.1131	0.0450	0.61361	0.00122	0.61605
athmpkmr_1_6_1_3	500	513	17,127.6	51,214.9	185.70	33.20594	na	na	3,000.0	33.2629	0.0485	0.58503	0.00102	0.58706
athmpkmr_1_6_1_2	500	513	9,666.2	51,214.9	107.80	32.30667	na	na	3,000.0	32.3668	0.0527	0.53799	0.00104	0.54007
athmpkmr_1_6_1_1	500	513	2,204.7	51,214.9	29.90	31.35434	na	na	3,000.0	31.4182	0.0577	0.47057	0.00099	0.47255

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