Specifications to ICSBEP NEA/NSC/DOC(95)03, September 2006 Edition
February 2007

Code Library		Experiment		Tripoli-4.4.1 JEFF-3.1 Calculation		Tripoli-4.4.1 ENDF/B-VII Calculation	
		Keff	Unc.	Kcalc	S.D.	Kcalc	S.D.
ICSBEP	Name			Fast		range	
IMF-007							
Big Ten	deta.	1.0045	70	0.99863	13	1.00503	13
	simp.	1.0045	70	0.99790	13	1.00417	13
Δ (C-E)				**-623**		**10**	
	t.z.h.	0.9948	130	0.98830	12	0.99534	12
Δ (C-E)				**-650**		**54**	
IMF-012							
ZPR(16%)	c-1	1.0007	270	1.00261	13	1.00408	13
Δ (C-E)				**191**		**338**	
IMF-10							
ZPR-U9	c-1	0.9954	240	0.99181	12	0.99688	12
Δ (C-E)				**-359**		**148**	
IMF-002							
	c-1	1.0000	300	0.99216	10	0.99923	10
Δ (C-E)				**-784**		**-77**	
IMF-001							
Jemima	c-2	1.0000	120	0.99837	12	0.99902	12
	c-3	1.0000	100	0.99741	12	1.00080	12
	c-4	1.0000	100	0.99850	12	1.00166	12
Average				**0.99809**		**1.00049**	
Δ (C-E)				**-191**		**49**	
HMF-028							
Flattop-25		1.0000	300	1.00210	11	1.00321	11
Δ (C-E)				**210**		**321**	
HMF-001							
Godiva	c1	1.0000	100	0.99645	11	1.00020	11
	c2	1.0000	100	0.99660	11	1.00027	11
Average				**0.99653**		**1.00023**	
Δ (C-E)				**-347**		**23**	
PMF-001							
Jezebel	c-1	1.0000	200	1.00025	15	0.99963	15
Δ (C-E)				**25**		**-37**	
PMF-002							
Jez. 240	c-1	1.0000	200	1.00430	15	0.99986	15
Δ (C-E)				**430**		**-14**	

Code Library ICSBEP	Name	Experiment Keff	Unc.	Tripoli-4.4.1 JEFF-3.1 Calculation Kcalc Thermal	S.D.	Tripoli-4.4.1 ENDF/B-VII Calculation Kcalc range	S.D.
LCT-006							
	c-1	1.0000	200	0.99998	12	1.00058	12
	c-3	1.0000	200	1.00051	9	1.00116	9
	c-4	1.0000	200	0.99987	12	1.00083	12
	c-8	1.0000	200	1.00059	12	1.00080	12
	c-9	1.0000	200	1.00011	12	1.00076	12
	c-13	1.0000	200	0.99994	12	1.00024	12
	c-14	1.0000	200	0.99958	12	1.00050	12
	c-18	1.0000	200	0.99978	12	1.00029	12
Average				**1.00005**		**1.00065**	
Δ (C-E)				**5**		**65**	
LCT-007							
Valduc	c-1	1.0000	160	0.99780	10	0.99861	12
	c-2	1.0000	160	0.99932	10	0.99993	14
	c-3	1.0000	160	0.99749	10	0.99837	14
	c-5	1.0000	160	0.99753	10	0.99828	14
	c-6	1.0000	160	0.99915	10	0.99971	14
	c-7	1.0000	160	0.99843	10	0.99963	14
Average				**0.99829**		**0.99909**	
Δ (C-E)				**-171**		**-91**	
LCT-039							
Valduc	c-1	1.0000	140	0.99761	12	0.99824	14
	c-4	1.0000	140	0.99665	12	0.99765	14
	c-6	1.0000	140	0.99767	12	0.99801	14
Average				**0.99731**		**0.99797**	
Δ (C-E)				**-269**		**-203**	
Hiss		1.0000	600	1.01003	13	1.01107	13
Δ (C-E)				**1003**		**1107**	
Topsy-NI		1.0000	400	1.00201	17	1.00740	17
Δ (C-E)				**201**		**740**	
Topsy-UR		1.0000	400	1.00687	16	1.00747	16
Δ (C-E)				**687**		**747**	
LCT-027							
Pb refl.	c-1	1.0000	110	1.00757	12	1.00340	12
Δ (C-E)				**757**		**340**	
LCT-10							
Pb refl.	c-1	1.0000	210	1.00697	12	1.00597	12
Δ (C-E)				**697**		**597**	
Pb refl.	c-20	1.0000	280	1.00538	12	1.00531	12
Δ (C-E)				**538**		**531**	

Code				Tripoli-4.4.1		Tripoli-4.4.1	
Library				JEFF-3.1		ENDF/B-VII	
		Experiment		Calculation		Calculation	
		Keff	Unc.	Kcalc	S.D.	Kcalc	S.D.
ICSBEP	Name			Thermal		range	
PST-009	**48" sphere, Al vessel, bare**						
9.54 gPu/l	c-2A	1.0003	330	1.01893	11	1.01923	11
9.46 gPu/l	c-3A	1.0003	330	1.01927	11	1.01928	11
Average				**1.01910**		**1.01926**	
Δ (C-E)				**1880**		**1896**	
MCT-004	**Mox 3.01 wt% PuO2-UO2 fuel rods,**						
2.4 w/f ratio	c-1	1.0000	460	0.99683	13	0.99752	13
2.9 w/f ratio	c-4	1.0000	390	0.99707	13	0.99772	14
4.2 w/f ratio	c-7	1.0000	400	0.99779	13	0.99850	13
5.5 w/f ratio	c-10	1.0000	510	0.99783	13	0.99861	13
Average				**0.99738**		**0.99809**	
Δ (C-E)				**-262**		**-191**	
PST-001	**11.5" sphere, water reflected**						
73.0 gPu/l	c-1	1.0000	500	1.00186	12	1.00622	12
96.0 gPu/l	c-2	1.0000	500	1.00356	12	1.00829	12
119.0 gPu/l	c-3	1.0000	500	1.00665	12	1.01115	12
132.0 gPu/l	c-4	1.0000	500	1.00104	12	1.00526	12
140.0 gPu/l	c-5	1.0000	500	1.00505	17	1.00950	12
268.7 gPu/l	c-6	1.0000	500	1.00681	12	1.01057	12
Average				**1.00416**		**1.00850**	
Δ (C-E)				**416**		**850**	
PST-011	**16&18" sphere, bare**						
34.9 gPu/l	16-1	1.0000	520	1.00669	13	1.01037	12
43.4 gPu/l	16-5	1.0000	520	1.00337	13	1.00668	12
Average				**1.00503**		**1.00853**	
Δ (C-E)				**503**		**853**	
22.3 gPu/l	18-1	1.0000	520	0.99134	13	0.99450	12
27.5 gPu/l	18-6	1.0000	520	0.99708	13	1.00049	12
Average				**0.99421**		**0.99750**	
Δ (C-E)				**-579**		**-250**	
PST-013	**256-mm cyl, in air**						
115 gPu/l	c-1	0.9980	400	1.00169	12	1.00510	12
115 gPu/l	c-2	0.9980	400	1.00157	12	1.00528	12
Average				**1.00163**		**1.00519**	
Δ (C-E)				**363**		**719**	
115 gPu/l	c-4	0.9965	520	0.99419	12	0.99747	12
Δ (C-E)				**-231**		**97**	

Code				Tripoli-4.4.1		Tripoli-4.4.1	
Library				JEFF-3.1		ENDF/B-VII	
		Experiment		Calculation		Calculation	
		Keff	Unc.	Kcalc	S.D.	Kcalc	S.D.
ICSBEP	Name			Solutions			
HST001							
Mid	c-1	1.0004	600	0.99908	16	0.99907	16
Leakage	c-2	1.0021	720	0.99666	16	0.99700	17
Nitrate	c-3	1.0003	350	1.00237	16	1.00208	17
Sol.	c-4	1.0008	530	0.99929	16	0.99865	16
	c-5	1.0001	490	0.99974	16	0.99925	16
	c-6	1.0002	460	1.00314	16	1.00227	16
	c-7	1.0008	400	0.99882	16	0.99853	16
	c-8	0.9998	380	0.99890	16	0.99840	16
	c-9	1.0008	540	0.99483	16	0.99480	16
Average		**1.0006**		**0.99920**		**0.99890**	
Δ (C-E)				**-139**		**-169**	
HST009							
High	c-1	0.9990	430	1.00064	19	1.00238	17
Leakage	c-2	1.0000	390	1.00144	16	1.00293	16
Fluoride	c-3	1.0000	360	1.00099	16	1.00251	16
Sol.	c-4	0.9986	350	0.99559	16	0.99700	16
Average		**0.9994**		**0.99966**		**1.00120**	
Δ (C-E)				**26**		**180**	
HST010							
	c-1	1.0000	290	1.00104	16	1.00148	16
	c-2	1.0000	290	1.00122	16	1.00221	16
	c-3	1.0000	290	0.99872	16	0.99953	16
	c-4	0.9992	290	0.99666	16	0.99773	16
Average		**0.9998**		**0.99941**		**1.00024**	
Δ (C-E)				**-39**		**44**	
HST011							
	c-1	1.0000	230	1.00473	16	1.00524	16
	c-2	1.0000	230	1.00062	16	1.00110	16
Average				**1.00267**		**1.00317**	
Δ (C-E)				**267**		**317**	
HST012							
	c-1	0.9999	580	1.00115	16	1.00096	16
Δ (C-E)				**125**		**106**	
HST013							
	c-1	1.0012	260	0.99880	16	0.99906	16
	c-2	1.0007	360	0.99791	16	0.99766	16
	c-3	1.0003	360	0.99416	16	0.99411	16
	c-4	1.0003	360	0.99591	16	0.99593	16
Average		**1.0006**		**0.99669**		**0.99669**	
Δ (C-E)				**-393**		**-394**	
HST018							
Gd	c-1	1.0000	340	0.98956	16	0.99093	16
	c-2	1.0000	460	0.98503	16	0.98570	16
	c-3	1.0000	420	0.98832	16	0.98949	16
Average				**0.98764**		**0.98871**	
Δ (C-E)				**-1236**		**-1129**	
HST019							
	c-1	1.0000	410	0.99691	16	0.99835	17
Δ (C-E)				**-309**		**-165**	
HST032							
		1.0015	260	0.99881	16	0.99939	16
Δ (C-E)				**-269**		**-211**