

# of sub-batch/cycle	enrichment	cycle #	cycle burnup	sub-batch burnup	Min. sub-batch burnup	Max. sub-batch burnup	Decrement bias (pcm)	Sensitivity (%)	Exposure Multiplier from r.m.s. Minimization
1	3.86	9	5.707	6.757	6.090	7.240	48	0.342	0.98
1	3.86	9	6.789	8.039	7.200	8.650	3	0.350	1.00
1	3.86	9	7.908	9.366	8.340	10.110	82	0.505	0.98
1	3.86	9	8.662	10.259	9.100	11.100	195	0.590	0.96
1	3.86	9	9.513	11.267	9.960	12.220	119	0.537	0.98
1	3.86	9	10.232	12.119	10.690	13.170	250	0.609	0.96
1	3.86	9	11.182	13.243	11.640	14.420	362	0.577	0.95
1	3.86	9	12.367	14.643	12.830	15.970	339	0.507	0.96
1	3.86	9	13.442	15.913	13.920	17.380	474	0.665	0.95
1	3.86	9	14.427	17.077	14.920	18.680	218	0.695	0.98
1	3.86	9	15.479	18.317	15.990	20.050	12	0.745	1.00
2	3.86	10	3.239	22.212	18.890	25.200	-450	1.482	1.03
2	3.86	10	3.905	22.755	19.270	25.990	-150	1.855	1.01
2	3.86	10	4.943	23.597	19.850	27.260	-149	2.028	1.01
2	3.86	10	6.070	24.508	20.480	28.630	4	2.112	1.00
2	3.86	10	6.878	25.158	20.930	29.620	6	2.274	1.00
2	3.86	10	7.961	26.026	21.540	30.960	351	2.410	0.98
2	3.86	10	9.081	26.921	22.160	32.330	537	2.233	0.97
2	3.86	10	10.121	27.752	22.750	33.610	376	2.155	0.98
2	3.86	10	11.244	28.649	23.390	34.990	-7	2.310	1.00
2	3.86	10	12.324	29.514	24.010	36.320	-3	2.407	1.00
2	3.86	10	13.412	30.389	24.650	37.640	-10	2.538	1.00
2	3.86	10	14.505	31.272	25.290	38.960	-11	2.457	1.00
2	3.86	10	15.465	32.052	25.870	40.110	5	2.609	1.00
3	3.86	11	3.397	31.162	27.570	37.350	385	1.253	0.98
3	3.86	11	4.793	31.756	28.150	37.760	401	1.283	0.98
3	3.86	11	5.757	32.167	28.560	38.050	402	1.404	0.98
3	3.86	11	6.578	32.517	28.900	38.290	212	1.382	0.99
3	3.86	11	7.516	32.916	29.300	38.570	843	1.078	0.96
3	3.86	11	8.035	33.136	29.520	38.720	853	1.021	0.96
3	3.86	11	8.696	33.418	29.790	38.920	1073	0.861	0.95
3	3.86	11	9.737	33.862	30.230	39.230	868	0.966	0.96
3	3.86	11	10.855	34.342	30.710	39.570	1332	0.662	0.94
3	3.86	11	11.939	34.810	31.170	39.900	1577	0.490	0.93
3	3.86	11	12.992	35.270	31.630	40.220	1591	0.485	0.93
3	3.86	11	14.107	35.764	32.120	40.580	1843	0.466	0.92
3	3.86	11	15.187	36.251	32.610	40.920	1613	0.638	0.93
3	3.86	11	16.236	36.733	33.090	41.270	1388	0.899	0.94
4	3.86	12	3.550	36.075	34.540	37.560	233	0.355	0.99
4	3.86	12	4.622	36.432	34.920	37.900	467	0.406	0.98
4	3.86	12	5.702	36.792	35.290	38.250	707	0.326	0.97
4	3.86	12	6.726	37.133	35.650	38.570	477	0.371	0.98
4	3.86	12	8.889	37.853	36.400	39.260	249	0.341	0.99
4	3.86	12	12.051	38.906	37.500	40.260	485	0.391	0.98
4	3.86	12	13.132	39.268	37.880	40.610	484	0.402	0.98
4	3.86	12	14.213	39.632	38.260	40.960	728	0.352	0.97

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4	3.86	12	15.292	39.999	38.640	41.310	729	0.307	0.97
5	3.86	9	15.479	19.754	19.480	19.990	472	0.344	0.95
6	3.86	10	3.239	24.982	24.570	25.370	-476	1.431	1.03
6	3.86	10	3.905	25.773	25.330	26.200	-6	1.920	1.00
6	3.86	10	4.943	27.003	26.500	27.480	156	2.015	0.99
6	3.86	10	6.070	28.337	27.770	28.880	168	2.243	0.99
6	3.86	10	6.878	29.292	28.670	29.880	174	2.416	0.99
6	3.86	10	7.961	30.570	29.880	31.220	553	2.045	0.97
6	3.86	10	9.081	31.889	31.120	32.590	579	1.982	0.97
6	3.86	10	10.121	33.113	32.270	33.870	594	2.185	0.97
6	3.86	10	11.244	34.431	33.500	35.240	-189	1.952	1.01
6	3.86	10	12.324	35.694	34.690	36.550	11	2.436	1.00
6	3.86	10	13.412	36.964	35.890	37.860	-203	2.135	1.01
6	3.86	10	14.505	38.234	37.090	39.180	-207	2.210	1.01
6	3.86	10	15.465	39.345	38.140	40.320	219	2.618	0.99
7	3.92	10	10.121	12.185	10.390	13.180	4	0.369	1.00
7	3.92	10	11.244	13.530	11.500	14.670	-9	0.529	1.00
7	3.92	10	12.324	14.820	12.570	16.090	77	0.669	0.99
7	3.92	10	13.412	16.118	13.650	17.520	-108	0.878	1.01
7	3.92	10	14.505	17.420	14.740	18.940	-338	0.666	1.03
7	3.92	10	15.465	18.562	15.700	20.190	-471	0.658	1.04
8	3.92	11	3.397	23.156	19.820	25.010	-446	1.847	1.03
8	3.92	11	4.793	24.807	21.290	26.760	7	2.470	1.00
8	3.92	11	5.757	25.941	22.290	27.960	1	2.450	1.00
8	3.92	11	6.578	26.901	23.140	28.990	345	2.494	0.98
8	3.92	11	7.516	27.993	24.100	30.160	536	2.297	0.97
8	3.92	11	8.035	28.595	24.630	30.810	549	2.239	0.97
8	3.92	11	8.696	29.361	25.300	31.630	741	2.061	0.96
8	3.92	11	9.737	30.560	26.350	32.930	577	2.234	0.97
8	3.92	11	10.855	31.841	27.480	34.310	997	1.757	0.95
8	3.92	11	11.939	33.078	28.560	35.660	1229	1.585	0.94
8	3.92	11	12.992	34.274	29.620	36.960	1256	1.506	0.94
8	3.92	11	14.107	35.536	30.730	38.330	1299	1.617	0.94
8	3.92	11	15.187	36.754	31.810	39.650	444	2.549	0.98
8	3.92	11	16.236	37.936	32.860	40.920	225	2.851	0.99
9	3.65	10	14.505	18.454	18.190	18.910	-163	0.347	1.02
10	3.65	11	3.397	24.355	24.080	24.820	138	2.899	0.99
10	3.65	11	4.793	26.037	25.770	26.480	162	2.796	0.99
10	3.65	11	5.757	27.199	26.950	27.620	170	2.833	0.99
10	3.65	11	6.578	28.188	27.950	28.590	349	2.593	0.98
10	3.65	11	7.516	29.321	29.090	29.690	554	2.374	0.97
10	3.65	11	8.035	29.947	29.730	30.300	735	2.194	0.96
10	3.65	11	8.696	30.747	30.540	31.080	760	2.367	0.96
10	3.65	11	9.737	32.005	31.810	32.300	398	2.879	0.98
10	3.65	11	10.855	33.356	33.180	33.610	1015	2.133	0.95
10	3.65	11	11.939	34.665	34.510	34.880	1045	2.153	0.95

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10	3.65	11	12.992	35.933	35.800	36.110	1075	2.144	0.95
10	3.65	11	14.107	37.272	37.160	37.400	1109	2.127	0.95
10	3.65	11	15.187	38.563	38.470	38.650	452	3.029	0.98
10	3.65	11	16.236	39.810	39.690	39.890	28	3.121	1.00
11	3.65	10	11.244	14.719	14.580	14.790	15	0.994	1.00
11	3.65	10	12.324	16.175	16.030	16.240	96	1.263	0.99
11	3.65	10	13.412	17.637	17.490	17.700	-155	1.696	1.02
11	3.65	10	14.505	19.098	18.940	19.160	-285	1.956	1.03
11	3.65	10	15.465	20.371	20.210	20.440	-219	2.417	1.02
12	3.65	11	3.397	24.982	24.800	25.100	-629	0.890	1.04
12	3.65	11	4.793	26.641	26.470	26.780	-157	1.292	1.01
12	3.65	11	5.757	27.787	27.620	27.950	-334	1.275	1.02
12	3.65	11	6.578	28.760	28.600	28.950	9	1.447	1.00
12	3.65	11	7.516	29.873	29.720	30.080	199	1.671	0.99
12	3.65	11	8.035	30.488	30.320	30.710	203	1.648	0.99
12	3.65	11	8.696	31.272	31.080	31.520	211	1.743	0.99
12	3.65	11	9.737	32.504	32.270	32.780	405	1.711	0.98
12	3.65	11	10.855	33.825	33.540	34.130	825	1.483	0.96
12	3.65	11	11.939	35.103	34.770	35.440	852	1.502	0.96
12	3.65	11	12.992	36.342	35.960	36.710	661	1.595	0.97
12	3.65	11	14.107	37.649	37.220	38.050	900	1.371	0.96
12	3.65	11	15.187	38.911	38.440	39.350	240	1.791	0.99
12	3.65	11	16.236	40.133	39.610	40.600	244	1.758	0.99
13	3.92	10	10.121	11.777	11.570	12.020	318	0.356	0.96
13	3.92	10	11.244	13.040	12.810	13.310	161	0.503	0.98
13	3.92	10	12.324	14.252	14.010	14.540	375	0.551	0.96
13	3.92	10	13.412	15.472	15.210	15.770	-19	0.900	1.00
13	3.92	10	14.505	16.698	16.430	17.010	-140	0.825	1.01
13	3.92	10	15.465	17.777	17.500	18.100	-10	1.038	1.00
14	3.92	11	3.397	22.044	21.840	22.230	-168	1.854	1.01
14	3.92	11	4.793	23.555	23.210	23.930	145	2.312	0.99
14	3.92	11	5.757	24.589	24.140	25.090	-6	2.214	1.00
14	3.92	11	6.578	25.462	24.930	26.080	167	2.424	0.99
14	3.92	11	7.516	26.453	25.820	27.200	183	2.459	0.99
14	3.92	11	8.035	26.998	26.310	27.810	183	2.416	0.99
14	3.92	11	8.696	27.691	26.940	28.600	194	2.468	0.99
14	3.92	11	9.737	28.775	27.920	29.820	375	2.466	0.98
14	3.92	11	10.855	29.933	28.960	31.130	407	2.367	0.98
14	3.92	11	11.939	31.051	29.970	32.400	423	2.386	0.98
14	3.92	11	12.992	32.132	30.950	33.620	240	2.413	0.99
14	3.92	11	14.107	33.274	31.990	34.900	450	2.371	0.98
14	3.92	11	15.187	34.378	33.000	36.140	-183	2.051	1.01
14	3.92	11	16.236	35.450	33.980	37.330	-196	2.108	1.01
15	4.02	11	8.696	10.433	9.820	11.130	-69	0.315	1.02
15	4.02	11	9.737	11.672	10.970	12.500	-86	0.415	1.02
15	4.02	11	10.855	13.000	12.190	13.960	78	0.802	0.99

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15	4.02	11	11.939	14.286	13.380	15.390	-118	0.792	1.02
15	4.02	11	12.992	15.532	14.530	16.770	-143	0.962	1.02
15	4.02	11	14.107	16.851	15.740	18.230	-73	1.313	1.01
15	4.02	11	15.187	18.128	16.920	19.640	-301	1.262	1.03
15	4.02	11	16.236	19.369	18.070	21.000	-342	1.290	1.03
16	4.02	12	3.550	23.598	22.690	25.940	161	0.541	0.99
16	4.02	12	4.622	24.678	23.750	27.220	811	0.445	0.95
16	4.02	12	5.702	25.760	24.800	28.500	1014	0.380	0.94
16	4.02	12	6.726	26.780	25.770	29.720	1393	0.318	0.92
16	4.02	12	8.889	28.922	27.200	32.280	1111	0.352	0.94
16	4.02	12	10.971	30.965	28.570	34.740	980	0.441	0.95
16	4.02	12	12.051	32.017	29.270	36.010	204	0.666	0.99
16	4.02	12	13.132	33.067	29.970	37.280	205	0.673	0.99
16	4.02	12	14.213	34.114	30.670	38.560	-202	0.579	1.01
16	4.02	12	15.292	35.157	31.370	39.820	-424	0.487	1.02
16	4.02	12	16.374	36.199	32.070	41.080	-648	0.480	1.03
16	4.02	12	17.455	37.241	32.780	42.340	-443	0.459	1.02
16	4.02	12	18.535	38.281	33.500	43.590	-6	0.540	1.00
17	4.02	13	3.911	36.714	35.340	39.370	-229	0.333	1.01
17	4.02	13	4.997	37.098	35.680	39.830	-228	0.368	1.01
17	4.02	13	6.042	37.465	36.010	40.260	224	0.319	0.99
17	4.02	13	8.244	38.231	36.710	41.170	232	0.315	0.99
17	4.02	13	9.323	38.607	37.050	41.620	231	0.317	0.99
17	4.02	13	13.649	40.160	38.460	43.450	228	0.336	0.99
17	4.02	13	16.893	41.404	39.590	44.920	738	0.322	0.97
17	4.02	13	17.974	41.838	39.980	45.430	491	0.316	0.98
18	4.02	11	15.187	20.004	19.850	20.170	88	0.371	0.99
18	4.02	11	16.236	21.442	21.270	21.620	-63	0.664	1.01
19	4.02	12	4.622	25.237	24.520	27.680	-451	0.346	1.03
19	4.02	12	5.702	25.945	25.100	28.970	-128	0.451	1.01
19	4.02	12	6.726	26.612	25.640	30.190	37	0.512	1.00
19	4.02	12	7.807	27.314	26.180	31.480	30	0.514	1.00
19	4.02	12	8.889	28.014	26.720	32.770	205	0.639	0.99
19	4.02	12	9.971	28.710	27.250	34.060	567	0.633	0.97
19	4.02	12	10.971	29.353	27.740	35.240	214	0.721	0.99
19	4.02	12	12.051	30.045	28.270	36.530	390	0.714	0.98
19	4.02	12	13.132	30.738	28.800	37.810	393	0.764	0.98
19	4.02	12	14.213	31.433	29.330	39.090	589	0.677	0.97
19	4.02	12	15.292	32.128	29.860	40.360	393	0.757	0.98
19	4.02	12	16.374	32.828	30.400	41.630	798	0.555	0.96
19	4.02	12	17.455	33.532	30.950	42.890	604	0.560	0.97
19	4.02	12	18.535	34.242	31.510	44.150	616	0.546	0.97
20	4.02	13	3.911	34.212	34.060	34.310	845	0.434	0.96
20	4.02	13	4.997	34.745	34.540	34.900	-2	0.728	1.00
20	4.02	13	6.042	35.253	34.990	35.460	211	0.658	0.99
20	4.02	13	7.160	35.792	35.480	36.050	656	0.583	0.97

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20	4.02	13	8.244	36.314	35.950	36.630	440	0.676	0.98
20	4.02	13	9.323	36.834	36.420	37.200	219	0.733	0.99
20	4.02	13	10.406	37.358	36.890	37.770	1366	0.390	0.94
20	4.02	13	11.487	37.886	37.370	38.350	917	0.536	0.96
20	4.02	13	12.532	38.402	37.840	38.910	1394	0.362	0.94
20	4.02	13	13.649	38.962	38.340	39.520	1402	0.459	0.94
20	4.02	13	14.733	39.515	38.850	40.120	1424	0.433	0.94
20	4.02	13	15.817	40.078	39.360	40.740	1195	0.523	0.95
20	4.02	13	16.893	40.648	39.880	41.350	1461	0.408	0.94
20	4.02	13	17.974	41.231	40.420	41.990	1478	0.431	0.94
21	4.02	11	15.187	19.974	19.840	20.090	104	0.345	0.99
21	4.02	11	16.236	21.376	21.230	21.500	313	0.355	0.97
22	4.02	12	3.550	26.341	26.160	26.500	480	0.887	0.97
22	4.02	12	4.622	27.625	27.440	27.790	838	0.856	0.95
22	4.02	12	5.702	28.917	28.740	29.080	1222	0.644	0.93
22	4.02	12	6.726	30.143	29.970	30.300	1091	0.829	0.94
22	4.02	12	7.807	31.434	31.260	31.590	1106	0.916	0.94
22	4.02	12	8.889	32.725	32.560	32.870	962	1.112	0.95
22	4.02	12	9.971	34.015	33.860	34.150	1177	1.019	0.94
22	4.02	12	10.971	35.208	35.070	35.330	1008	1.061	0.95
22	4.02	12	12.051	36.494	36.370	36.600	411	1.601	0.98
22	4.02	12	13.132	37.778	37.670	37.900	216	1.632	0.99
22	4.02	12	14.213	39.061	38.970	39.200	225	1.701	0.99
22	4.02	12	15.292	40.337	40.240	40.490	-212	1.395	1.01
22	4.02	12	16.374	41.610	41.500	41.780	-431	1.105	1.02
22	4.02	12	17.455	42.877	42.750	43.060	-439	1.074	1.02
22	4.02	12	18.535	44.137	44.000	44.340	-673	0.955	1.03
23	4.50	12	12.051	14.542	12.560	15.490	122	0.318	0.97
23	4.50	12	13.132	15.875	13.640	16.960	147	0.356	0.97
23	4.50	12	14.213	17.209	14.710	18.450	301	0.301	0.95
23	4.50	12	15.292	18.539	15.770	19.930	210	0.451	0.97
23	4.50	12	16.374	19.870	16.840	21.400	413	0.301	0.95
23	4.50	12	17.455	21.197	17.900	22.880	289	0.483	0.97
23	4.50	12	18.535	22.519	18.960	24.340	104	0.917	0.99
24	4.50	13	3.911	27.597	24.780	30.110	-327	0.517	1.02
24	4.50	13	4.997	28.696	26.140	31.330	-341	0.441	1.02
24	4.50	13	6.042	29.746	27.440	32.490	-528	0.373	1.03
24	4.50	13	7.160	30.861	28.810	33.720	-719	0.434	1.04
24	4.50	13	8.244	31.936	29.710	34.900	-740	0.446	1.04
24	4.50	13	9.323	33.002	30.270	36.070	-572	0.474	1.03
24	4.50	13	10.406	34.066	30.840	37.230	-771	0.536	1.04
24	4.50	13	11.487	35.125	31.400	38.390	-593	0.512	1.03
24	4.50	13	12.532	36.146	31.960	39.500	-815	0.428	1.04
24	4.50	13	13.649	37.236	32.560	40.680	-1048	0.457	1.05
24	4.50	13	14.733	38.290	33.150	41.980	-1075	0.501	1.05
24	4.50	13	15.817	39.344	33.760	43.290	-1097	0.467	1.05

# of sub-batch/cycle	enrichment	cycle #	cycle burnup	sub-batch burnup	Min. sub-batch burnup	Max. sub-batch burnup	Decrement bias (pcm)	Sensitivity (%)	Exposure Multiplier from r.m.s. Minimization
24	4.50	13	16.893	40.389	34.370	44.580	-666	0.527	1.03
24	4.50	13	17.974	41.438	34.990	45.860	-1134	0.412	1.05
24	4.50	13	18.788	42.227	35.470	46.810	-1382	0.341	1.06
25	4.50	13	3.911	29.717	28.620	30.440	14	3.865	1.00
25	4.50	13	4.997	31.020	29.980	31.790	12	4.012	1.00
25	4.50	13	6.042	32.265	31.280	33.080	11	4.040	1.00
25	4.50	13	7.160	33.590	32.690	34.480	394	3.824	0.98
25	4.50	13	8.244	34.867	34.060	35.820	406	4.077	0.98
25	4.50	13	9.323	36.133	35.420	37.160	211	4.333	0.99
25	4.50	13	10.406	37.394	36.780	38.500	640	3.727	0.97
25	4.50	13	11.487	38.646	37.880	39.830	440	4.159	0.98
25	4.50	13	12.532	39.849	38.900	41.110	446	3.993	0.98
25	4.50	13	13.649	41.127	39.990	42.470	231	4.700	0.99
25	4.50	13	14.733	42.358	41.040	43.770	1	4.776	1.00
25	4.50	13	15.817	43.583	42.090	45.070	-1	4.806	1.00
25	4.50	13	16.893	44.791	43.130	46.350	251	4.523	0.99
25	4.50	13	17.974	45.996	44.160	47.620	495	4.350	0.98
25	4.50	13	18.788	46.899	44.940	48.570	734	3.690	0.97
26	4.50	12	10.971	12.403	11.700	13.110	-47	0.351	1.01
26	4.50	12	12.051	13.557	12.790	14.330	-234	0.355	1.03
26	4.50	12	13.132	14.703	13.880	15.540	-173	0.467	1.02
26	4.50	12	14.213	15.845	14.960	16.740	10	0.658	1.00
26	4.50	12	15.292	16.982	16.040	17.930	-110	0.674	1.01
26	4.50	12	16.374	18.120	17.120	19.130	108	0.728	0.99
26	4.50	12	17.455	19.259	18.200	20.330	112	0.830	0.99
26	4.50	12	18.535	20.399	19.280	21.530	-153	0.760	1.01
27	4.50	13	3.911	25.920	24.980	27.300	831	0.816	0.95
27	4.50	13	4.997	27.173	26.270	28.670	1027	0.794	0.94
27	4.50	13	6.042	28.365	27.480	29.980	882	0.916	0.95
27	4.50	13	7.160	29.628	28.760	31.390	1103	0.765	0.94
27	4.50	13	8.244	30.843	29.990	32.760	1134	0.890	0.94
27	4.50	13	9.323	32.045	31.190	34.120	774	1.095	0.96
27	4.50	13	10.406	33.243	32.390	35.470	1210	0.792	0.94
27	4.50	13	11.487	34.434	33.580	36.820	1033	1.010	0.95
27	4.50	13	12.532	35.582	34.610	38.120	846	1.050	0.96
27	4.50	13	13.649	36.807	35.680	39.490	429	1.234	0.98
27	4.50	13	14.733	37.992	36.720	40.810	438	1.325	0.98
27	4.50	13	15.817	39.177	37.780	42.130	447	1.361	0.98
27	4.50	13	16.893	40.351	38.820	43.420	700	1.129	0.97
27	4.50	13	17.974	41.529	39.880	44.710	712	1.049	0.97
27	4.50	13	18.788	42.415	40.680	45.670	725	1.043	0.97
28	4.31	13	12.532	12.838	11.870	13.990	-174	0.336	1.03
28	4.31	13	13.649	13.988	12.930	15.250	-215	0.427	1.03
28	4.31	13	14.733	15.111	13.960	16.470	-390	0.377	1.05
28	4.31	13	15.817	16.244	15.010	17.700	-271	0.629	1.03
28	4.31	13	16.893	17.378	16.060	18.930	-296	0.618	1.03

# of sub-batch/cycle	enrichment	cycle #	cycle burnup	sub-batch burnup	Min. sub-batch burnup	Max. sub-batch burnup	Decrement bias (pcm)	Sensitivity (%)	Exposure Multiplier from r.m.s. Minimization
28	4.31	13	17.974	18.526	17.130	20.170	-436	0.685	1.04
28	4.31	13	18.788	19.397	17.940	21.110	-672	0.495	1.06
29	4.31	14	3.689	24.905	22.810	26.670	293	1.434	0.98
29	4.31	14	4.771	26.108	23.890	27.900	154	1.659	0.99
29	4.31	14	5.844	27.284	24.940	29.110	3	1.651	1.00
29	4.31	14	6.937	28.467	26.010	30.330	-163	1.571	1.01
29	4.31	14	8.019	29.627	27.060	31.540	-342	1.410	1.02
29	4.31	14	9.102	30.779	28.110	32.750	-357	1.393	1.02
29	4.31	14	10.266	32.009	29.240	34.040	-370	1.331	1.02
29	4.31	14	11.161	32.952	30.110	35.030	-380	1.472	1.02
29	4.31	14	12.159	33.998	31.070	36.130	-393	1.336	1.02
29	4.31	14	13.359	35.254	32.240	37.460	-402	1.437	1.02
29	4.31	14	14.441	36.386	33.290	38.650	-204	1.643	1.01
29	4.31	14	15.523	37.515	34.350	39.840	-209	1.582	1.01
29	4.31	14	16.606	38.646	35.410	41.030	-215	1.610	1.01
29	4.31	14	18.287	40.403	37.070	42.870	-3	1.785	1.00
29	4.31	14	19.372	41.537	38.140	44.060	-2	1.733	1.00
30	4.31	13	15.817	17.888	17.480	18.290	-155	0.532	1.02
30	4.31	13	16.893	19.143	18.720	19.570	1	0.608	1.00
30	4.31	13	17.974	20.410	19.970	20.850	206	0.430	0.98
30	4.31	13	18.788	21.368	20.920	21.820	243	0.549	0.98
31	4.31	14	3.689	27.175	26.730	27.640	465	1.254	0.97
31	4.31	14	4.771	28.488	28.050	28.960	322	1.507	0.98
31	4.31	14	5.844	29.790	29.360	30.260	165	1.680	0.99
31	4.31	14	6.937	31.114	30.690	31.590	-7	1.750	1.00
31	4.31	14	8.019	32.425	32.010	32.910	-192	1.551	1.01
31	4.31	14	9.102	33.735	33.320	34.220	-204	1.625	1.01
31	4.31	14	10.266	35.139	34.730	35.630	-399	1.532	1.02
31	4.31	14	11.161	36.216	35.820	36.720	-410	1.424	1.02
31	4.31	14	12.159	37.412	37.020	37.920	-618	1.259	1.03
31	4.31	14	13.359	38.845	38.460	39.360	-215	1.658	1.01
31	4.31	14	14.441	40.132	39.750	40.650	-6	1.781	1.00
31	4.31	14	15.523	41.410	41.040	41.930	-5	1.690	1.00
31	4.31	14	16.606	42.684	42.320	43.210	-1	1.731	1.00
31	4.31	14	18.287	44.648	44.300	45.180	0	1.777	1.00
31	4.31	14	19.372	45.905	45.560	46.440	0	1.668	1.00
32	3.81	13	3.911	4.495	4.410	4.620	244	0.307	1.05
32	3.81	13	4.997	5.827	5.710	5.970	104	0.539	1.02
32	3.81	13	6.042	7.137	6.990	7.280	180	0.391	1.04
32	3.81	13	7.160	8.562	8.380	8.710	81	0.373	1.02
32	3.81	13	13.649	17.057	16.710	17.260	58	0.379	0.99
32	3.81	13	14.733	18.473	18.100	18.710	201	0.564	0.97
32	3.81	13	15.817	19.883	19.480	20.140	168	1.009	0.98
32	3.81	13	16.893	21.273	20.850	21.560	116	1.496	0.99
32	3.81	13	17.974	22.658	22.200	22.970	9	2.305	1.00
32	3.81	13	18.788	23.694	23.220	24.020	-141	2.657	1.01

# of sub-batch/cycle	enrichment	cycle #	cycle burnup	sub-batch burnup	Min. sub-batch burnup	Max. sub-batch burnup	Decrement bias (pcm)	Sensitivity (%)	Exposure Multiplier from r.m.s. Minimization
33	3.81	14	3.689	28.522	27.090	29.420	4	2.324	1.00
33	3.81	14	4.771	29.507	27.570	30.610	2	2.706	1.00
33	3.81	14	5.844	30.481	28.040	31.760	-173	2.848	1.01
33	3.81	14	6.937	31.468	28.520	32.970	-359	2.832	1.02
33	3.81	14	8.019	32.444	29.000	34.170	-370	2.606	1.02
33	3.81	14	9.102	33.418	29.480	35.370	-568	2.371	1.03
33	3.81	14	10.266	34.464	30.000	36.650	-389	2.643	1.02
33	3.81	14	11.161	35.267	30.410	37.630	-396	2.681	1.02
33	3.81	14	12.159	36.162	30.870	38.720	-405	2.553	1.02
33	3.81	14	13.359	37.238	31.430	40.030	-414	2.591	1.02
33	3.81	14	14.441	38.209	31.940	41.200	-417	2.583	1.02
33	3.81	14	15.523	39.179	32.460	42.370	-425	2.440	1.02
33	3.81	14	16.606	40.152	32.990	43.540	-217	2.723	1.01
33	3.81	14	18.287	41.664	33.830	45.340	-222	2.616	1.01
33	3.81	14	19.372	42.640	34.390	46.490	-225	2.515	1.01
34	3.81	15	5.290	38.196	37.080	38.800	-222	0.349	1.01
34	3.81	15	6.407	38.593	37.570	39.150	221	0.473	0.99
34	3.81	15	7.488	38.981	38.040	39.490	444	0.473	0.98
34	3.81	15	8.568	39.372	38.530	39.840	446	0.446	0.98
34	3.81	15	9.622	39.758	39.000	40.180	451	0.453	0.98
34	3.81	15	10.703	40.160	39.500	40.530	684	0.412	0.97
34	3.81	15	11.785	40.568	40.000	40.890	223	0.482	0.99
34	3.81	15	12.899	40.995	40.520	41.270	461	0.398	0.98
34	3.81	15	13.829	41.357	40.970	41.590	942	0.314	0.96
34	3.81	15	14.815	41.746	41.440	41.940	470	0.407	0.98
34	3.81	15	15.900	42.182	41.970	42.330	234	0.425	0.99
34	3.81	15	16.983	42.625	42.510	42.730	977	0.302	0.96
34	3.81	15	18.055	43.071	43.050	43.130	481	0.392	0.98
35	4.19	14	10.266	12.971	11.810	13.680	-231	0.413	1.04
35	4.19	14	11.161	14.101	12.840	14.890	-266	0.556	1.04
35	4.19	14	12.159	15.356	13.990	16.220	-237	0.667	1.03
35	4.19	14	13.359	16.862	15.360	17.820	-91	1.073	1.01
35	4.19	14	14.441	18.216	16.610	19.260	4	1.335	1.00
35	4.19	14	15.523	19.564	17.850	20.690	117	1.403	0.99
35	4.19	14	16.606	20.912	19.090	22.110	2	1.648	1.00
35	4.19	14	18.287	22.994	21.030	24.300	2	1.779	1.00
35	4.19	14	19.372	24.332	22.280	25.700	2	1.863	1.00
36	4.19	15	3.212	29.113	27.040	30.390	-182	2.881	1.01
36	4.19	15	4.281	30.323	28.220	31.600	-186	2.903	1.01
36	4.19	15	5.290	31.457	29.320	32.740	-185	3.053	1.01
36	4.19	15	6.407	32.705	30.520	34.020	0	3.374	1.00
36	4.19	15	7.488	33.905	31.660	35.250	-186	3.169	1.01
36	4.19	15	8.568	35.099	32.780	36.490	-190	3.149	1.01
36	4.19	15	9.622	36.260	33.870	37.700	4	3.325	1.00
36	4.19	15	10.703	37.446	34.980	38.940	-202	3.092	1.01
36	4.19	15	11.785	38.628	36.080	40.170	-205	3.111	1.01



# of sub-batch/cycle	enrichment	cycle #	cycle burnup	sub-batch burnup	Min. sub-batch burnup	Max. sub-batch burnup	Decrement bias (pcm)	Sensitivity (%)	Exposure Multiplier from r.m.s. Minimization
36	4.19	15	12.899	39.841	37.210	41.450	-425	2.863	1.02
36	4.19	15	13.829	40.851	38.150	42.500	-434	3.033	1.02
36	4.19	15	14.815	41.918	39.150	43.620	-218	2.978	1.01
36	4.19	15	15.900	43.089	40.240	44.850	6	3.274	1.00
36	4.19	15	16.983	44.253	41.330	46.070	7	3.387	1.00
36	4.19	15	18.055	45.403	42.410	47.260	-226	3.228	1.01
37	4.46	14	8.019	8.766	7.620	9.380	-124	0.400	1.03
37	4.46	14	9.102	9.947	8.640	10.660	-250	0.450	1.05
37	4.46	14	10.266	11.217	9.730	12.040	-192	0.717	1.03
37	4.46	14	11.161	12.196	10.570	13.100	-218	0.954	1.03
37	4.46	14	12.159	13.287	11.520	14.280	-247	0.992	1.03
37	4.46	14	13.359	14.604	12.660	15.710	-109	1.648	1.01
37	4.46	14	14.441	15.795	13.700	17.000	-17	1.973	1.00
37	4.46	14	15.523	16.988	14.740	18.290	-15	2.118	1.00
37	4.46	14	16.606	18.188	15.790	19.590	-14	2.403	1.00
37	4.46	14	18.287	20.058	17.440	21.600	-9	2.771	1.00
37	4.46	14	19.372	21.268	18.510	22.900	-9	2.812	1.00
38	4.46	15	3.212	26.224	23.290	27.890	-296	2.984	1.02
38	4.46	15	4.281	27.495	24.530	29.160	-312	3.092	1.02
38	4.46	15	5.290	28.677	25.670	30.350	-163	3.372	1.01
38	4.46	15	6.407	29.969	26.930	31.650	1	3.684	1.00
38	4.46	15	7.488	31.206	28.120	32.910	-3	3.595	1.00
38	4.46	15	8.568	32.431	29.310	34.150	-3	3.721	1.00
38	4.46	15	9.622	33.620	30.450	35.360	-1	3.886	1.00
38	4.46	15	10.703	34.833	31.630	36.590	-3	3.789	1.00
38	4.46	15	11.785	36.042	32.800	37.820	-6	3.803	1.00
38	4.46	15	12.899	37.282	34.000	39.080	-9	3.723	1.00
38	4.46	15	13.829	38.313	35.000	40.130	-5	3.883	1.00
38	4.46	15	14.815	39.406	36.070	41.240	-1	3.882	1.00
38	4.46	15	15.900	40.605	37.240	42.450	-1	3.769	1.00
38	4.46	15	16.983	41.799	38.410	43.660	4	3.791	1.00
38	4.46	15	18.055	42.980	39.570	44.850	5	3.771	1.00
39	4.46	16	3.867	43.910	41.030	45.450	481	0.559	0.98
39	4.46	16	4.952	44.277	41.340	45.780	241	0.542	0.99
39	4.46	16	5.989	44.629	41.630	46.100	-248	0.493	1.01
39	4.46	16	7.066	44.997	41.930	46.440	489	0.634	0.98
39	4.46	16	8.191	45.382	42.240	46.790	491	0.696	0.98
39	4.46	16	9.275	45.756	42.540	47.130	495	0.741	0.98
39	4.46	16	10.355	46.130	42.850	47.470	246	0.787	0.99
39	4.46	16	11.432	46.507	43.150	47.810	-6	0.742	1.00
39	4.46	16	12.513	46.889	43.460	48.150	-257	0.751	1.01
39	4.46	16	13.833	47.361	43.840	48.580	-258	0.836	1.01
39	4.46	16	14.916	47.755	44.160	48.940	-262	0.875	1.01
39	4.46	16	15.996	48.154	44.480	49.300	253	0.948	0.99
39	4.46	16	17.078	48.561	44.820	49.670	259	0.902	0.99
39	4.46	16	18.423	49.077	45.240	50.140	259	0.796	0.99

# of sub-batch/cycle	enrichment	cycle #	cycle burnup	sub-batch burnup	Min. sub-batch burnup	Max. sub-batch burnup	Decrement bias (pcm)	Sensitivity (%)	Exposure Multiplier from r.m.s. Minimization
40	4.19	14	13.359	17.270	17.160	17.370	-126	0.387	1.02
40	4.19	14	14.441	18.723	18.600	18.830	1	0.546	1.00
40	4.19	14	15.523	20.168	20.040	20.280	2	0.699	1.00
40	4.19	14	16.606	21.611	21.480	21.730	-107	0.801	1.01
40	4.19	14	18.287	23.834	23.700	23.960	4	1.107	1.00
40	4.19	14	19.372	25.256	25.110	25.380	4	1.166	1.00
41	4.19	15	3.212	28.997	27.780	30.210	-346	1.181	1.02
41	4.19	15	4.281	29.870	28.300	31.440	-182	1.328	1.01
41	4.19	15	5.290	30.694	28.790	32.600	-5	1.511	1.00
41	4.19	15	6.407	31.609	29.330	33.890	0	1.583	1.00
41	4.19	15	7.488	32.495	29.850	35.140	-2	1.603	1.00
41	4.19	15	8.568	33.382	30.380	36.390	-2	1.562	1.00
41	4.19	15	9.622	34.249	30.910	37.600	-1	1.507	1.00
41	4.19	15	10.703	35.140	31.450	38.840	-3	1.535	1.00
41	4.19	15	11.785	36.033	32.000	40.080	-2	1.561	1.00
41	4.19	15	12.899	36.954	32.570	41.350	-210	1.368	1.01
41	4.19	15	13.829	37.723	33.050	42.410	-425	1.176	1.02
41	4.19	15	14.815	38.539	33.570	43.530	-216	1.243	1.01
41	4.19	15	15.900	39.439	34.150	44.750	-2	1.307	1.00
41	4.19	15	16.983	40.338	34.730	45.960	-443	1.084	1.02
41	4.19	15	18.055	41.229	35.320	47.150	-2	1.323	1.00
42	4.19	14	13.359	17.457	17.330	17.580	-243	0.389	1.03
42	4.19	14	14.441	18.903	18.760	19.040	-196	0.554	1.02
42	4.19	14	15.523	20.342	20.190	20.480	-116	0.728	1.01
42	4.19	14	16.606	21.778	21.620	21.930	-125	0.785	1.01
42	4.19	14	18.287	23.996	23.830	24.160	-141	0.996	1.01
42	4.19	14	19.372	25.415	25.240	25.580	-151	0.957	1.01
43	4.19	15	3.212	29.302	28.430	30.160	670	1.708	0.96
43	4.19	15	4.281	30.204	29.020	31.400	339	2.224	0.98
43	4.19	15	5.290	31.051	29.570	32.570	172	2.592	0.99
43	4.19	15	6.407	31.983	30.180	33.870	0	2.680	1.00
43	4.19	15	7.488	32.881	30.780	35.110	0	2.596	1.00
43	4.19	15	8.568	33.777	31.380	36.350	1	2.495	1.00
43	4.19	15	9.622	34.649	31.970	37.550	-193	2.293	1.01
43	4.19	15	10.703	35.544	32.580	38.790	-197	2.280	1.01
43	4.19	15	11.785	36.440	33.200	40.010	-202	2.284	1.01
43	4.19	15	12.899	37.363	33.850	41.270	-208	2.173	1.01
43	4.19	15	13.829	38.135	34.390	42.310	212	2.542	0.99
43	4.19	15	14.815	38.955	34.980	43.410	5	2.367	1.00
43	4.19	15	15.900	39.860	35.630	44.620	-214	2.165	1.01
43	4.19	15	16.983	40.766	36.290	45.820	231	2.587	0.99
43	4.19	15	18.055	41.666	36.960	47.000	230	2.488	0.99
44	4.18	15	12.899	16.740	15.450	17.250	159	0.370	0.98
44	4.18	15	13.829	17.955	16.600	18.480	-92	0.333	1.01
44	4.18	15	14.815	19.241	17.820	19.780	2	0.396	1.00
44	4.18	15	15.900	20.649	19.160	21.200	5	0.454	1.00

# of sub-batch/cycle	enrichment	cycle #	cycle burnup	sub-batch burnup	Min. sub-batch burnup	Max. sub-batch burnup	Decrement bias (pcm)	Sensitivity (%)	Exposure Multiplier from r.m.s. Minimization
44	4.18	15	16.983	22.050	20.500	22.610	-119	0.562	1.01
44	4.18	15	18.055	23.430	21.810	24.000	5	0.579	1.00
45	4.18	16	3.867	28.124	26.450	29.130	-161	2.201	1.01
45	4.18	16	4.952	29.296	27.120	30.420	-167	2.271	1.01
45	4.18	16	5.989	30.412	27.760	31.650	-349	2.277	1.02
45	4.18	16	7.066	31.566	28.410	32.920	1	2.718	1.00
45	4.18	16	8.191	32.769	29.090	34.240	2	2.880	1.00
45	4.18	16	9.275	33.925	29.740	35.520	3	2.990	1.00
45	4.18	16	10.355	35.076	30.380	36.780	-194	2.823	1.01
45	4.18	16	11.432	36.222	31.020	38.040	-199	2.832	1.01
45	4.18	16	12.513	37.369	31.670	39.300	-204	2.852	1.01
45	4.18	16	13.833	38.767	32.450	40.840	3	3.134	1.00
45	4.18	16	14.916	39.913	33.110	42.090	-214	2.879	1.01
45	4.18	16	15.996	41.052	33.760	43.330	-216	2.957	1.01
45	4.18	16	17.078	42.191	34.430	44.570	5	3.137	1.00
45	4.18	16	18.423	43.603	35.270	46.110	9	2.993	1.00
46	4.53	15	8.568	9.922	9.160	11.190	35	0.320	0.99
46	4.53	15	9.622	11.152	10.300	12.510	95	0.386	0.98
46	4.53	15	10.703	12.415	11.460	13.860	52	0.571	0.99
46	4.53	15	11.785	13.679	12.630	15.200	62	0.686	0.99
46	4.53	15	12.899	14.982	13.840	16.580	-11	0.849	1.00
46	4.53	15	13.829	16.069	14.850	17.720	79	0.865	0.99
46	4.53	15	14.815	17.224	15.930	18.940	190	0.901	0.98
46	4.53	15	15.900	18.494	17.120	20.260	102	1.055	0.99
46	4.53	15	16.983	19.764	18.310	21.590	115	1.202	0.99
46	4.53	15	18.055	21.022	19.500	22.900	248	1.149	0.98
47	4.53	16	3.867	26.133	24.540	28.340	154	1.169	0.99
47	4.53	16	4.952	27.437	25.840	29.710	159	1.195	0.99
47	4.53	16	5.989	28.681	27.090	31.000	-3	1.497	1.00
47	4.53	16	7.066	29.968	28.380	32.320	2	1.630	1.00
47	4.53	16	8.191	31.312	29.730	33.690	3	1.756	1.00
47	4.53	16	9.275	32.603	31.030	34.990	3	1.868	1.00
47	4.53	16	10.355	33.889	32.320	36.270	0	1.853	1.00
47	4.53	16	11.432	35.168	33.610	37.530	0	1.864	1.00
47	4.53	16	12.513	36.450	34.900	38.780	0	1.924	1.00
47	4.53	16	13.833	38.010	36.470	40.300	3	1.949	1.00
47	4.53	16	14.916	39.288	37.760	41.540	0	1.993	1.00
47	4.53	16	15.996	40.558	39.040	42.770	5	2.102	1.00
47	4.53	16	17.078	41.826	40.320	43.990	7	2.154	1.00
47	4.53	16	18.423	43.396	41.910	45.500	15	1.907	1.00
48	4.53	17	3.308	45.234	44.310	47.010	-722	0.507	1.03
48	4.53	17	4.392	45.683	44.760	47.450	-724	0.556	1.03
48	4.53	17	5.473	46.131	45.210	47.900	-729	0.567	1.03
48	4.53	17	6.558	46.582	45.660	48.340	-731	0.643	1.03
48	4.53	17	7.642	47.034	46.110	48.790	-495	0.781	1.02
48	4.53	17	8.732	47.491	46.570	49.250	-742	0.732	1.03

# of sub-batch/cycle	enrichment	cycle #	cycle burnup	sub-batch burnup	Min. sub-batch burnup	Max. sub-batch burnup	Decrement bias (pcm)	Sensitivity (%)	Exposure Multiplier from r.m.s. Minimization
48	4.53	17	9.544	47.835	46.920	49.590	-499	0.863	1.02
48	4.53	17	10.897	48.412	47.500	50.160	-254	0.977	1.01
48	4.53	17	11.981	48.881	47.970	50.620	-4	1.104	1.00
48	4.53	17	13.063	49.356	48.450	51.090	-260	1.028	1.01
48	4.53	17	14.146	49.838	48.930	51.570	-4	1.236	1.00
48	4.53	17	15.228	50.327	49.420	52.050	-4	1.243	1.00
48	4.53	17	16.311	50.825	49.920	52.540	-8	1.278	1.00
48	4.53	17	17.391	51.331	50.430	53.040	-3	0.935	1.00
48	4.53	17	18.474	51.847	50.950	53.550	7	1.034	1.00
49	4.53	15	9.622	11.067	10.650	11.490	-44	0.362	1.01
49	4.53	15	10.703	12.328	11.870	12.800	-164	0.348	1.03
49	4.53	15	11.785	13.594	13.090	14.110	-72	0.640	1.01
49	4.53	15	12.899	14.902	14.350	15.460	-234	0.554	1.03
49	4.53	15	13.829	15.995	15.410	16.590	-262	0.720	1.03
49	4.53	15	14.815	17.160	16.540	17.790	-103	1.106	1.01
49	4.53	15	15.900	18.443	17.790	19.100	95	1.071	0.99
49	4.53	15	16.983	19.729	19.040	20.420	224	1.180	0.98
49	4.53	15	18.055	21.004	20.290	21.720	-9	1.466	1.00
50	4.53	16	3.867	26.220	25.610	26.820	603	0.557	0.96
50	4.53	16	4.952	27.522	26.920	28.120	317	0.726	0.98
50	4.53	16	5.989	28.752	28.140	29.350	329	0.830	0.98
50	4.53	16	7.066	30.014	29.390	30.620	174	1.083	0.99
50	4.53	16	8.191	31.320	30.680	31.950	360	1.063	0.98
50	4.53	16	9.275	32.567	31.910	33.210	372	1.205	0.98
50	4.53	16	10.355	33.801	33.130	34.460	384	1.272	0.98
50	4.53	16	11.432	35.023	34.330	35.710	394	1.300	0.98
50	4.53	16	12.513	36.242	35.520	36.950	203	1.521	0.99
50	4.53	16	13.833	37.722	36.970	38.450	421	1.458	0.98
50	4.53	16	14.916	38.930	38.160	39.690	216	1.651	0.99
50	4.53	16	15.996	40.132	39.340	40.910	5	1.618	1.00
50	4.53	16	17.078	41.331	40.510	42.140	6	1.562	1.00
50	4.53	16	18.423	42.817	41.970	43.650	466	1.274	0.98
51	4.53	17	3.308	44.884	44.180	45.570	-253	0.391	1.01
51	4.53	17	4.392	45.250	44.600	45.890	-10	0.469	1.00
51	4.53	17	5.473	45.617	45.020	46.200	-254	0.443	1.01
51	4.53	17	6.558	45.987	45.440	46.520	-7	0.547	1.00
51	4.53	17	7.642	46.360	45.870	46.830	-500	0.509	1.02
51	4.53	17	8.732	46.738	46.300	47.160	-505	0.504	1.02
51	4.53	17	9.544	47.022	46.630	47.400	-2	0.694	1.00
51	4.53	17	10.897	47.500	47.170	47.810	-509	0.589	1.02
51	4.53	17	11.981	47.890	47.620	48.150	-258	0.671	1.01
51	4.53	17	13.063	48.285	48.070	48.490	-767	0.549	1.03
51	4.53	17	14.146	48.686	48.530	48.830	-261	0.747	1.01
51	4.53	17	15.228	49.095	48.990	49.180	-263	0.741	1.01
51	4.53	17	16.311	49.512	49.470	49.540	-526	0.686	1.02
51	4.53	17	17.391	49.936	49.850	50.020	0	0.613	1.00

# of sub-batch/cycle	enrichment	cycle #	cycle burnup	sub-batch burnup	Min. sub-batch burnup	Max. sub-batch burnup	Decrement bias (pcm)	Sensitivity (%)	Exposure Multiplier from r.m.s. Minimization
51	4.53	17	18.474	50.370	50.230	50.520	277	0.790	0.99
52	4.18	15	12.899	16.727	16.680	16.780	72	0.407	0.99
52	4.18	15	14.815	19.292	19.250	19.330	190	0.672	0.98
52	4.18	15	15.900	20.736	20.690	20.770	111	0.923	0.99
52	4.18	15	16.983	22.170	22.130	22.210	478	0.801	0.96
52	4.18	15	18.055	23.581	23.540	23.630	146	1.310	0.99
53	4.18	16	3.867	27.661	26.420	28.830	-317	1.029	1.02
53	4.18	16	4.952	28.650	27.090	30.100	-164	1.147	1.01
53	4.18	16	5.989	29.584	27.720	31.290	-342	1.119	1.02
53	4.18	16	7.066	30.541	28.380	32.510	-172	1.259	1.01
53	4.18	16	8.191	31.531	29.050	33.760	-356	1.267	1.02
53	4.18	16	9.275	32.477	29.700	34.950	-366	1.326	1.02
53	4.18	16	10.355	33.412	30.340	36.120	-378	1.389	1.02
53	4.18	16	11.432	34.339	30.980	37.280	-389	1.382	1.02
53	4.18	16	12.513	35.266	31.630	38.440	-202	1.569	1.01
53	4.18	16	13.833	36.395	32.420	39.830	-408	1.478	1.02
53	4.18	16	14.916	37.321	33.070	40.970	-211	1.647	1.01
53	4.18	16	15.996	38.245	33.730	42.130	-1	1.862	1.00
53	4.18	16	17.078	39.172	34.390	43.290	4	1.809	1.00
53	4.18	16	18.423	40.329	35.230	44.740	-8	1.652	1.00
54	4.42	16	15.996	20.433	18.700	21.230	173	0.414	0.98
54	4.42	16	17.078	21.856	20.000	22.670	203	0.497	0.98
54	4.42	16	18.423	23.619	21.620	24.450	12	0.683	1.00
55	4.42	17	3.308	28.746	26.730	29.520	-164	3.824	1.01
55	4.42	17	4.392	30.025	28.020	30.790	-168	3.992	1.01
55	4.42	17	5.473	31.294	29.310	32.060	-176	4.076	1.01
55	4.42	17	6.558	32.562	30.600	33.330	-181	4.231	1.01
55	4.42	17	7.642	33.825	31.890	34.590	-186	4.337	1.01
55	4.42	17	8.732	35.092	33.190	35.860	-194	4.477	1.01
55	4.42	17	9.544	36.034	34.150	36.800	-1	5.034	1.00
55	4.42	17	10.897	37.599	35.760	38.360	-2	5.106	1.00
55	4.42	17	11.981	38.850	37.040	39.610	1	5.244	1.00
55	4.42	17	13.063	40.096	38.320	40.860	1	5.223	1.00
55	4.42	17	14.146	41.337	39.590	42.100	2	5.355	1.00
55	4.42	17	15.228	42.575	40.860	43.330	3	5.487	1.00
55	4.42	17	16.311	43.809	42.120	44.560	2	5.523	1.00
55	4.42	17	17.391	45.035	43.380	45.780	9	5.141	1.00
55	4.42	17	18.474	46.260	44.630	47.000	10	5.324	1.00
56	4.42	18	3.348	46.894	46.590	47.190	1691	0.481	0.93
56	4.42	18	4.238	47.200	47.010	47.390	1205	0.646	0.95
56	4.42	18	5.324	47.572	47.520	47.620	961	0.796	0.96
56	4.42	18	6.408	47.944	47.790	48.090	724	0.932	0.97
56	4.42	18	7.445	48.301	48.020	48.580	731	0.991	0.97
56	4.42	18	8.300	48.597	48.210	48.980	483	1.122	0.98
56	4.42	18	8.569	48.690	48.270	49.110	483	1.071	0.98
56	4.42	18	9.653	49.067	48.510	49.620	495	1.045	0.98

# of sub-batch/cycle	enrichment	cycle #	cycle burnup	sub-batch burnup	Min. sub-batch burnup	Max. sub-batch burnup	Decrement bias (pcm)	Sensitivity (%)	Exposure Multiplier from r.m.s. Minimization
56	4.42	18	10.734	49.448	48.760	50.140	502	1.105	0.98
56	4.42	18	11.817	49.834	49.010	50.660	250	1.047	0.99
56	4.42	18	12.863	50.211	49.260	51.170	253	1.166	0.99
56	4.42	18	13.985	50.623	49.530	51.720	518	1.075	0.98
56	4.42	18	15.030	51.013	49.790	52.240	260	1.204	0.99
56	4.42	18	15.514	51.196	49.920	52.480	264	1.334	0.99
56	4.42	18	16.114	51.425	50.070	52.780	3	0.987	1.00
56	4.42	18	17.237	51.860	50.370	53.360	1	1.080	1.00
56	4.42	18	18.320	52.289	50.660	53.920	6	1.145	1.00
56	4.42	18	18.862	52.507	50.810	54.200	-1	0.946	1.00
57	4.67	16	7.066	8.387	7.940	8.860	0	0.540	1.00
57	4.67	16	8.191	9.716	9.170	10.340	43	0.779	0.99
57	4.67	16	9.275	10.993	10.360	11.790	51	0.959	0.99
57	4.67	16	10.355	12.261	11.520	13.240	-5	1.032	1.00
57	4.67	16	11.432	13.523	12.680	14.690	65	1.156	0.99
57	4.67	16	12.513	14.786	13.840	16.160	74	1.251	0.99
57	4.67	16	13.833	16.325	15.260	17.960	270	1.075	0.97
57	4.67	16	14.916	17.587	16.410	19.430	94	1.423	0.99
57	4.67	16	15.996	18.846	17.560	20.900	-4	1.593	1.00
57	4.67	16	17.078	20.107	18.720	22.370	122	1.607	0.99
57	4.67	16	18.423	21.674	20.160	24.200	259	1.385	0.98
58	4.67	17	3.308	26.559	25.340	29.540	-466	1.206	1.03
58	4.67	17	4.392	27.782	26.100	30.830	-323	1.388	1.02
58	4.67	17	5.473	28.991	26.870	32.110	-336	1.422	1.02
58	4.67	17	6.558	30.193	27.630	33.380	-175	1.598	1.01
58	4.67	17	7.642	31.386	28.400	34.640	-182	1.635	1.01
58	4.67	17	8.732	32.580	29.160	35.900	-188	1.724	1.01
58	4.67	17	9.544	33.467	29.740	36.830	-190	1.801	1.01
58	4.67	17	10.897	34.940	30.700	38.390	-391	1.721	1.02
58	4.67	17	11.981	36.116	31.470	39.630	-200	1.957	1.01
58	4.67	17	13.063	37.288	32.250	40.860	-207	1.904	1.01
58	4.67	17	14.146	38.457	33.030	42.100	-211	1.939	1.01
58	4.67	17	15.228	39.624	33.820	43.320	-217	2.024	1.01
58	4.67	17	16.311	40.790	34.620	44.540	-222	2.035	1.01
58	4.67	17	17.391	41.951	35.430	45.760	233	2.141	0.99
58	4.67	17	18.474	43.112	36.250	46.970	467	2.126	0.98
59	4.67	18	3.348	44.791	38.470	48.310	-978	0.779	1.04
59	4.67	18	4.238	45.151	38.980	48.580	-979	0.957	1.04
59	4.67	18	5.324	45.595	39.610	48.900	-505	1.149	1.02
59	4.67	18	6.408	46.042	40.240	49.220	-261	1.465	1.01
59	4.67	18	7.445	46.473	40.830	49.530	-506	1.337	1.02
59	4.67	18	8.300	46.832	41.330	49.790	-507	1.516	1.02
59	4.67	18	8.569	46.945	41.480	49.870	-510	1.375	1.02
59	4.67	18	9.653	47.405	42.110	50.200	-5	1.771	1.00
59	4.67	18	10.734	47.870	42.740	50.540	-6	1.846	1.00
59	4.67	18	11.817	48.341	43.370	50.880	-2	1.811	1.00

# of sub-batch/cycle	enrichment	cycle #	cycle burnup	sub-batch burnup	Min. sub-batch burnup	Max. sub-batch burnup	Decrement bias (pcm)	Sensitivity (%)	Exposure Multiplier from r.m.s. Minimization
59	4.67	18	12.863	48.802	43.990	51.210	-1	1.965	1.00
59	4.67	18	13.985	49.304	44.660	51.580	1	1.964	1.00
59	4.67	18	15.030	49.778	45.300	51.920	262	2.171	0.99
59	4.67	18	15.514	50.000	45.590	52.080	3	2.224	1.00
59	4.67	18	16.114	50.278	45.960	52.280	272	2.079	0.99
59	4.67	18	17.237	50.805	46.670	52.670	277	2.260	0.99
59	4.67	18	18.320	51.322	47.350	53.050	278	2.201	0.99
59	4.67	18	18.862	51.584	47.700	53.240	274	2.025	0.99
60	4.23	17	9.544	11.779	9.740	12.710	-69	0.324	1.02
60	4.23	17	10.897	13.502	11.120	14.530	-7	0.467	1.00
60	4.23	17	11.981	14.886	12.240	15.990	-2	0.696	1.00
60	4.23	17	13.063	16.267	13.350	17.440	-2	0.789	1.00
60	4.23	17	14.146	17.646	14.460	18.880	0	1.052	1.00
60	4.23	17	15.228	19.023	15.580	20.320	0	1.221	1.00
60	4.23	17	16.311	20.398	16.700	21.750	0	1.437	1.00
60	4.23	17	17.391	21.765	17.820	23.190	133	1.184	0.99
60	4.23	17	18.474	23.132	18.960	24.630	150	1.371	0.99
61	4.23	18	3.348	27.594	23.560	29.080	-317	3.568	1.02
61	4.23	18	4.238	28.644	24.660	30.120	-331	3.798	1.02
61	4.23	18	5.324	29.918	26.000	31.380	-340	4.033	1.02
61	4.23	18	6.408	31.182	27.330	32.630	-175	4.620	1.01
61	4.23	18	7.445	32.385	28.590	33.810	-184	4.705	1.01
61	4.23	18	8.300	33.373	29.640	34.790	-189	4.834	1.01
61	4.23	18	8.569	33.683	29.960	35.090	-190	4.849	1.01
61	4.23	18	9.653	34.932	31.280	36.320	1	5.320	1.00
61	4.23	18	10.734	36.174	32.590	37.540	1	5.560	1.00
61	4.23	18	11.817	37.414	33.900	38.760	-1	5.456	1.00
61	4.23	18	12.863	38.608	35.160	39.940	-2	5.584	1.00
61	4.23	18	13.985	39.886	36.510	41.200	1	5.588	1.00
61	4.23	18	15.030	41.071	37.750	42.360	-2	5.818	1.00
61	4.23	18	15.514	41.619	38.330	42.900	-3	5.988	1.00
61	4.23	18	16.114	42.298	39.050	43.570	222	5.526	0.99
61	4.23	18	17.237	43.563	40.380	44.810	230	5.750	0.99
61	4.23	18	18.320	44.780	41.650	46.010	238	5.709	0.99
61	4.23	18	18.862	45.387	42.290	46.600	1	5.785	1.00
62	4.51	17	7.642	9.290	9.000	9.950	21	0.366	0.99
62	4.51	17	8.732	10.621	10.290	11.400	-46	0.338	1.01
62	4.51	17	9.544	11.612	11.250	12.490	134	0.366	0.97
62	4.51	17	10.897	13.263	12.850	14.310	172	0.417	0.97
62	4.51	17	11.981	14.585	14.120	15.770	134	0.500	0.98
62	4.51	17	13.063	15.904	15.400	17.230	234	0.440	0.97
62	4.51	17	14.146	17.223	16.670	18.680	269	0.525	0.97
62	4.51	17	15.228	18.541	17.940	20.140	299	0.639	0.97
62	4.51	17	16.311	19.860	19.220	21.590	222	0.728	0.98
62	4.51	17	17.391	21.174	20.490	23.030	248	0.557	0.98
62	4.51	17	18.474	22.492	21.770	24.470	397	0.572	0.97

# of sub-batch/cycle	enrichment	cycle #	cycle burnup	sub-batch burnup	Min. sub-batch burnup	Max. sub-batch burnup	Decrement bias (pcm)	Sensitivity (%)	Exposure Multiplier from r.m.s. Minimization
63	4.51	18	3.348	27.029	26.110	29.010	-618	2.396	1.04
63	4.51	18	4.238	28.077	27.140	30.040	-483	2.780	1.03
63	4.51	18	5.324	29.338	28.390	31.280	-338	3.062	1.02
63	4.51	18	6.408	30.583	29.630	32.490	-345	3.267	1.02
63	4.51	18	7.445	31.763	30.800	33.650	-361	3.277	1.02
63	4.51	18	8.300	32.731	31.760	34.590	-368	3.444	1.02
63	4.51	18	8.569	33.034	32.060	34.890	-373	3.398	1.02
63	4.51	18	9.653	34.254	33.280	36.080	-190	3.735	1.01
63	4.51	18	10.734	35.467	34.480	37.270	-192	3.976	1.01
63	4.51	18	11.817	36.678	35.680	38.450	-192	3.953	1.01
63	4.51	18	12.863	37.845	36.830	39.600	-196	4.093	1.01
63	4.51	18	13.985	39.095	38.070	40.820	13	4.364	1.00
63	4.51	18	15.030	40.256	39.220	41.960	11	4.505	1.00
63	4.51	18	15.514	40.794	39.750	42.480	14	4.693	1.00
63	4.51	18	16.114	41.459	40.410	43.130	-220	4.031	1.01
63	4.51	18	17.237	42.703	41.650	44.350	-215	4.289	1.01
63	4.51	18	18.320	43.901	42.830	45.530	3	4.585	1.00
63	4.51	18	18.862	44.499	43.430	46.110	15	4.411	1.00
64	4.51	19	3.330	46.396	45.700	47.390	-485	0.334	1.02
64	4.51	19	4.684	46.926	46.390	47.660	-735	0.437	1.03
64	4.51	19	5.762	47.354	46.950	47.890	-493	0.527	1.02
64	4.51	19	6.850	47.790	47.520	48.120	-501	0.590	1.02
65	4.51	17	8.732	10.254	10.100	10.400	78	0.374	0.98
65	4.51	17	9.544	11.210	11.050	11.360	47	0.625	0.99
65	4.51	17	10.897	12.799	12.630	12.960	-4	0.917	1.00
65	4.51	17	11.981	14.073	13.900	14.250	-3	1.191	1.00
65	4.51	17	13.063	15.344	15.160	15.530	163	1.100	0.98
65	4.51	17	14.146	16.616	16.420	16.810	-3	1.557	1.00
65	4.51	17	15.228	17.890	17.690	18.090	-3	1.817	1.00
65	4.51	17	16.311	19.166	18.960	19.370	106	1.880	0.99
65	4.51	17	17.391	20.441	20.230	20.650	246	1.601	0.98
65	4.51	17	18.474	21.722	21.500	21.940	147	2.056	0.99
66	4.51	18	3.348	26.212	25.960	26.460	-769	1.112	1.05
66	4.51	18	4.238	27.292	27.030	27.550	-640	1.431	1.04
66	4.51	18	5.324	28.604	28.320	28.880	-659	1.555	1.04
66	4.51	18	6.408	29.908	29.610	30.200	-514	1.894	1.03
66	4.51	18	7.445	31.149	30.840	31.450	-533	1.961	1.03
66	4.51	18	8.300	32.167	31.850	32.480	-369	2.286	1.02
66	4.51	18	8.569	32.485	32.160	32.800	-553	1.967	1.03
66	4.51	18	9.653	33.769	33.430	34.100	-188	2.427	1.01
66	4.51	18	10.734	35.044	34.690	35.390	-197	2.520	1.01
66	4.51	18	11.817	36.315	35.940	36.680	-203	2.333	1.01
66	4.51	18	12.863	37.537	37.150	37.920	-208	2.518	1.01
66	4.51	18	13.985	38.845	38.440	39.240	-1	2.690	1.00
66	4.51	18	15.030	40.058	39.640	40.470	-215	2.603	1.01
66	4.51	18	15.514	40.619	40.190	41.040	-3	2.616	1.00



# of sub-batch/cycle	enrichment	cycle #	cycle burnup	sub-batch burnup	Min. sub-batch burnup	Max. sub-batch burnup	Decrement bias (pcm)	Sensitivity (%)	Exposure Multiplier from r.m.s. Minimization
66	4.51	18	16.114	41.313	40.880	41.740	-217	2.388	1.01
66	4.51	18	17.237	42.608	42.160	43.050	5	2.686	1.00
66	4.51	18	18.320	43.854	43.390	44.310	11	2.711	1.00
66	4.51	18	18.862	44.476	44.000	44.940	2	2.498	1.00
67	4.51	19	3.330	46.545	46.180	46.910	-729	0.362	1.03
67	4.51	19	3.601	46.662	46.300	47.010	-491	0.427	1.02
67	4.51	19	4.684	47.134	46.810	47.450	259	0.798	0.99
67	4.51	19	5.762	47.608	47.330	47.880	513	0.945	0.98
67	4.51	19	6.850	48.091	47.850	48.330	-504	0.640	1.02
68	4.05	18	11.817	15.341	15.180	15.800	163	0.314	0.97
68	4.05	18	12.863	16.727	16.560	17.200	210	0.493	0.97
68	4.05	18	13.985	18.212	18.050	18.700	170	0.653	0.98
68	4.05	18	15.030	19.589	19.430	20.090	199	0.911	0.98
68	4.05	18	15.514	20.226	20.070	20.730	206	1.141	0.98
68	4.05	18	16.114	21.014	20.860	21.520	108	1.254	0.99
68	4.05	18	17.237	22.483	22.320	22.990	246	1.565	0.98
68	4.05	18	18.320	23.894	23.710	24.400	143	1.603	0.99
68	4.05	18	18.862	24.598	24.410	25.110	288	1.498	0.98
69	4.05	19	3.330	29.260	29.090	29.770	-10	3.280	1.00
69	4.05	19	3.601	29.568	29.390	30.070	-6	3.487	1.00
69	4.05	19	4.684	30.794	30.630	31.280	171	3.598	0.99
69	4.05	19	5.762	32.000	31.840	32.460	181	3.815	0.99
69	4.05	19	6.850	33.208	33.020	33.650	-10	4.014	1.00
70	4.51	18	8.300	10.076	9.680	10.860	23	0.360	0.99
70	4.51	18	8.569	10.399	9.990	11.210	23	0.345	0.99
70	4.51	18	9.653	11.702	11.230	12.620	-6	0.400	1.00
70	4.51	18	10.734	13.001	12.470	14.040	-122	0.452	1.02
70	4.51	18	11.817	14.301	13.710	15.470	-65	0.509	1.01
70	4.51	18	12.863	15.557	14.900	16.840	-75	0.692	1.01
70	4.51	18	13.985	16.906	16.190	18.320	-181	0.645	1.02
70	4.51	18	15.030	18.162	17.380	19.700	-299	0.692	1.03
70	4.51	18	15.514	18.745	17.940	20.340	-203	0.872	1.02
70	4.51	18	16.114	19.467	18.620	21.130	11	0.867	1.00
70	4.51	18	17.237	20.819	19.910	22.600	261	0.879	0.98
70	4.51	18	18.320	22.123	21.160	24.020	275	1.021	0.98
70	4.51	18	18.862	22.776	21.780	24.730	11	1.045	1.00
71	4.51	19	3.330	27.590	26.360	29.740	-9	1.080	1.00
71	4.51	19	3.601	27.914	26.680	30.070	-167	1.167	1.01
71	4.51	19	4.684	29.200	27.950	31.380	-3	1.328	1.00
71	4.51	19	5.762	30.465	29.200	32.660	174	1.312	0.99
71	4.51	19	6.850	31.733	30.470	33.950	-11	1.450	1.00
72	4.51	18	8.300	9.766	9.670	9.820	-61	0.518	1.02
72	4.51	18	8.569	10.096	9.990	10.160	27	0.496	0.99
72	4.51	18	9.653	11.431	11.300	11.510	-39	0.850	1.01
72	4.51	18	10.734	12.766	12.610	12.870	-3	1.307	1.00
72	4.51	18	11.817	14.104	13.930	14.230	2	1.526	1.00

# of sub-batch/cycle	enrichment	cycle #	cycle burnup	sub-batch burnup	Min. sub-batch burnup	Max. sub-batch burnup	Decrement bias (pcm)	Sensitivity (%)	Exposure Multiplier from r.m.s. Minimization
72	4.51	18	12.863	15.397	15.200	15.550	5	1.912	1.00
72	4.51	18	13.985	16.787	16.560	16.960	4	2.218	1.00
72	4.51	18	15.030	18.081	17.830	18.270	4	2.642	1.00
72	4.51	18	15.514	18.681	18.420	18.880	5	2.835	1.00
72	4.51	18	16.114	19.425	19.150	19.640	14	2.736	1.00
72	4.51	18	17.237	20.815	20.510	21.050	19	3.160	1.00
72	4.51	18	18.320	22.157	21.830	22.420	147	3.398	0.99
72	4.51	18	18.862	22.828	22.490	23.100	8	3.236	1.00
73	4.51	19	6.850	31.836	31.460	32.140	-731	0.331	1.04
74	3.98	8	12.727	14.000	13.030	15.780	356	0.356	0.95
74	3.98	8	13.657	15.012	13.960	16.950	400	0.414	0.95
74	3.98	8	14.881	16.347	15.170	18.500	537	0.522	0.94
74	3.98	8	15.526	17.051	15.810	19.310	383	0.808	0.96
74	3.98	8	16.674	18.309	16.960	20.750	219	1.229	0.98
75	3.98	9	3.950	23.244	21.660	25.900	-594	1.586	1.04
75	3.98	9	5.026	24.444	22.440	27.120	-309	1.976	1.02
75	3.98	9	6.113	25.648	23.230	28.350	10	2.689	1.00
75	3.98	9	7.181	26.825	24.000	29.550	180	2.797	0.99
75	3.98	9	8.246	27.993	24.760	30.750	364	2.592	0.98
75	3.98	9	9.249	29.090	25.480	31.860	369	2.672	0.98
75	3.98	9	10.412	30.358	26.310	33.150	565	2.540	0.97
75	3.98	9	11.496	31.535	27.080	34.350	580	2.549	0.97
75	3.98	9	12.466	32.587	27.780	35.420	590	2.490	0.97
75	3.98	9	12.582	32.713	27.860	35.550	782	2.303	0.96
75	3.98	9	13.667	33.889	28.640	36.750	599	2.440	0.97
75	3.98	9	14.758	35.069	29.440	37.950	615	2.510	0.97
75	3.98	9	15.833	36.232	30.220	39.140	421	2.683	0.98
75	3.98	9	16.919	37.405	31.030	40.330	651	2.618	0.97
75	3.98	9	18.004	38.578	31.840	41.520	659	2.371	0.97
76	3.98	8	13.657	17.156	16.750	17.480	224	0.304	0.96
76	3.98	8	14.881	18.742	18.310	19.100	348	0.376	0.95
76	3.98	8	15.526	19.575	19.120	19.950	248	0.668	0.97
76	3.98	8	16.674	21.055	20.560	21.460	105	1.208	0.99
77	3.98	9	3.950	25.073	23.680	26.630	-482	0.747	1.03
77	3.98	9	5.026	26.020	24.210	27.920	-168	1.050	1.01
77	3.98	9	6.113	26.976	24.750	29.230	166	1.167	0.99
77	3.98	9	7.181	27.914	25.270	30.510	346	1.161	0.98
77	3.98	9	8.246	28.847	25.800	31.790	716	0.991	0.96
77	3.98	9	9.249	29.725	26.300	32.980	551	1.099	0.97
77	3.98	9	10.412	30.743	26.880	34.370	569	1.168	0.97
77	3.98	9	11.496	31.689	27.430	35.640	391	1.211	0.98
77	3.98	9	12.466	32.536	27.920	36.780	205	1.251	0.99
77	3.98	9	12.582	32.637	27.980	36.910	-183	1.036	1.01
77	3.98	9	13.667	33.584	28.530	38.180	-189	0.898	1.01
77	3.98	9	14.758	34.536	29.100	39.430	-194	0.942	1.01
77	3.98	9	15.833	35.474	29.660	40.660	7	0.951	1.00

# of sub-batch/cycle	enrichment	cycle #	cycle burnup	sub-batch burnup	Min. sub-batch burnup	Max. sub-batch burnup	Decrement bias (pcm)	Sensitivity (%)	Exposure Multiplier from r.m.s. Minimization
77	3.98	9	16.919	36.424	30.240	41.890	9	1.020	1.00
77	3.98	9	18.004	37.374	30.820	43.110	442	1.010	0.98
78	3.98	10	3.123	33.593	32.490	34.650	1026	0.384	0.95
78	3.98	10	4.175	34.137	32.960	35.780	1043	0.384	0.95
78	3.98	10	5.256	34.697	33.430	36.940	1051	0.380	0.95
78	3.98	10	6.337	35.257	33.910	38.090	1288	0.338	0.94
78	3.98	10	7.375	35.795	34.370	39.190	1294	0.373	0.94
78	3.98	10	8.457	36.357	34.850	40.340	1308	0.382	0.94
78	3.98	10	9.268	36.778	35.210	41.200	1543	0.347	0.93
78	3.98	10	10.350	37.340	35.690	42.350	1580	0.337	0.93
78	3.98	10	11.431	37.903	36.170	43.490	1142	0.470	0.95
78	3.98	10	13.499	38.984	37.100	45.680	1389	0.417	0.94
78	3.98	10	14.595	39.560	37.590	46.830	1402	0.369	0.94
78	3.98	10	15.392	39.982	37.950	47.670	1412	0.355	0.94
78	3.98	10	16.471	40.555	38.400	48.810	1184	0.440	0.95
78	3.98	10	17.050	40.866	38.600	49.420	1430	0.342	0.94
79	4.32	9	10.412	13.176	12.800	13.600	55	0.363	0.98
79	4.32	9	11.496	14.584	14.180	15.040	125	0.390	0.96
79	4.32	9	12.466	15.845	15.420	16.330	159	0.490	0.96
79	4.32	9	12.582	15.995	15.570	16.480	164	0.467	0.96
79	4.32	9	13.667	17.408	16.980	17.920	156	0.819	0.97
79	4.32	9	14.758	18.825	18.370	19.360	137	1.106	0.98
79	4.32	9	15.833	20.218	19.740	20.760	87	1.432	0.99
79	4.32	9	16.919	21.622	21.130	22.170	96	1.516	0.99
79	4.32	9	18.004	23.020	22.510	23.570	-311	1.774	1.03
80	4.32	10	3.123	26.985	25.170	28.070	334	3.642	0.98
80	4.32	10	4.175	28.065	25.820	29.320	523	3.254	0.97
80	4.32	10	5.256	29.173	26.490	30.590	359	3.599	0.98
80	4.32	10	6.337	30.275	27.170	31.870	746	3.063	0.96
80	4.32	10	7.375	31.332	27.820	33.090	186	4.048	0.99
80	4.32	10	8.457	32.430	28.500	34.350	390	3.957	0.98
80	4.32	10	9.268	33.251	29.010	35.300	201	4.162	0.99
80	4.32	10	10.350	34.344	29.690	36.560	1034	2.853	0.95
80	4.32	10	11.431	35.432	30.370	37.810	847	3.225	0.96
80	4.32	10	13.499	37.508	31.670	40.200	446	4.068	0.98
80	4.32	10	14.595	38.604	32.370	41.460	455	4.048	0.98
80	4.32	10	15.392	39.399	32.870	42.390	239	4.247	0.99
80	4.32	10	16.471	40.473	33.560	43.630	16	4.078	1.00
80	4.32	10	17.050	41.049	33.940	44.300	15	3.890	1.00
81	4.42	9	15.833	17.833	16.550	20.330	3	0.333	1.00
81	4.42	9	16.919	19.028	17.660	21.710	7	0.381	1.00
82	4.42	10	3.123	24.021	22.400	27.200	11	1.712	1.00
82	4.42	10	4.175	25.074	23.420	28.320	180	1.724	0.99
82	4.42	10	5.256	26.151	24.460	29.460	178	1.810	0.99
82	4.42	10	6.337	27.219	25.500	30.590	195	1.729	0.99
82	4.42	10	7.375	28.241	26.490	31.670	193	1.898	0.99

# of sub-batch/cycle	enrichment	cycle #	cycle burnup	sub-batch burnup	Min. sub-batch burnup	Max. sub-batch burnup	Decrement bias (pcm)	Sensitivity (%)	Exposure Multiplier from r.m.s. Minimization
82	4.42	10	8.457	29.297	27.520	32.780	377	1.904	0.98
82	4.42	10	9.268	30.085	28.280	33.610	389	1.904	0.98
82	4.42	10	10.350	31.131	29.300	34.710	810	1.422	0.96
82	4.42	10	11.431	32.169	30.310	35.800	228	2.015	0.99
82	4.42	10	13.499	34.145	32.240	37.870	437	1.879	0.98
82	4.42	10	14.595	35.188	33.260	38.960	1096	1.289	0.95
82	4.42	10	15.392	35.946	34.000	39.760	892	1.508	0.96
82	4.42	10	16.471	36.972	35.000	40.830	679	1.641	0.97
82	4.42	10	17.050	37.523	35.540	41.400	915	1.355	0.96
83	4.42	9	11.496	13.220	13.130	13.320	5	0.420	1.00
83	4.42	9	12.466	14.304	14.210	14.410	0	0.512	1.00
83	4.42	9	12.582	14.434	14.340	14.540	-255	0.357	1.03
83	4.42	9	13.667	15.647	15.550	15.760	-191	0.549	1.02
83	4.42	9	14.758	16.865	16.760	16.990	-211	0.592	1.02
83	4.42	9	15.833	18.067	17.960	18.200	-6	0.728	1.00
83	4.42	9	16.919	19.283	19.170	19.420	-364	0.583	1.03
84	4.42	10	3.123	24.025	22.980	25.090	10	1.722	1.00
84	4.42	10	4.175	24.983	23.640	26.350	180	1.804	0.99
84	4.42	10	5.256	25.962	24.310	27.640	10	1.647	1.00
84	4.42	10	6.337	26.934	24.970	28.910	540	1.533	0.97
84	4.42	10	7.375	27.863	25.610	30.130	-515	1.228	1.03
84	4.42	10	8.457	28.825	26.270	31.400	-172	1.652	1.01
84	4.42	10	9.268	29.543	26.770	32.340	-542	1.294	1.03
84	4.42	10	10.350	30.496	27.420	33.590	417	1.968	0.98
84	4.42	10	11.431	31.443	28.080	34.830	815	1.686	0.96
84	4.42	10	13.499	33.248	29.330	37.190	19	1.930	1.00
84	4.42	10	14.595	34.201	29.990	38.430	-598	1.367	1.03
84	4.42	10	15.392	34.894	30.480	39.330	-612	1.324	1.03
84	4.42	10	16.471	35.831	31.140	40.540	-633	1.338	1.03
84	4.42	10	17.050	36.335	31.490	41.200	-855	1.152	1.04
85	4.32	9	18.004	23.229	23.150	23.320	-336	0.415	1.03
86	4.32	10	3.123	27.735	27.620	27.880	16	2.049	1.00
86	4.32	10	4.175	28.986	28.820	29.150	362	1.898	0.98
86	4.32	10	5.256	30.265	30.050	30.440	194	2.002	0.99
86	4.32	10	6.337	31.535	31.270	31.730	576	1.565	0.97
86	4.32	10	7.375	32.749	32.440	32.960	195	2.232	0.99
86	4.32	10	8.457	34.009	33.650	34.240	214	2.034	0.99
86	4.32	10	9.268	34.950	34.560	35.190	405	2.172	0.98
86	4.32	10	10.350	36.200	35.760	36.460	1254	1.368	0.94
86	4.32	10	11.431	37.443	36.960	37.720	1064	1.446	0.95
86	4.32	10	13.499	39.805	39.230	40.120	882	1.542	0.96
86	4.32	10	14.595	41.049	40.420	41.380	1122	1.472	0.95
86	4.32	10	15.392	41.950	41.290	42.290	1130	1.582	0.95
86	4.32	10	16.471	43.163	42.450	43.520	911	1.633	0.96
86	4.32	10	17.050	43.813	43.080	44.180	925	1.424	0.96
87	4.54	10	17.050	16.137	16.080	16.210	-9	0.315	1.00

# of sub-batch/cycle	enrichment	cycle #	cycle burnup	sub-batch burnup	Min. sub-batch burnup	Max. sub-batch burnup	Decrement bias (pcm)	Sensitivity (%)	Exposure Multiplier from r.m.s. Minimization
88	4.54	11	3.129	20.435	20.340	20.570	527	0.776	0.96
88	4.54	11	4.211	21.819	21.720	21.950	555	0.871	0.96
88	4.54	11	5.293	23.198	23.100	23.330	279	1.057	0.98
88	4.54	11	6.373	24.571	24.480	24.690	289	1.111	0.98
88	4.54	11	7.455	25.940	25.860	26.040	303	1.236	0.98
88	4.54	11	8.462	27.208	27.140	27.280	313	1.286	0.98
88	4.54	11	9.582	28.613	28.560	28.670	152	1.203	0.99
88	4.54	11	10.702	30.011	29.980	30.090	339	1.363	0.98
88	4.54	11	11.784	31.354	31.280	31.450	165	1.245	0.99
88	4.54	11	13.859	33.909	33.760	34.050	180	1.277	0.99
88	4.54	11	14.941	35.230	35.040	35.390	-15	1.235	1.00
88	4.54	11	16.061	36.588	36.360	36.770	-19	1.126	1.00
88	4.54	11	17.140	37.888	37.630	38.080	424	1.167	0.98
88	4.54	11	18.221	39.184	38.900	39.390	436	1.134	0.98
88	4.54	11	19.187	40.334	40.030	40.560	-12	1.075	1.00
88	4.54	11	12.811	32.628	32.510	32.740	172	1.340	0.99
89	4.54	10	16.471	20.674	19.870	20.980	69	0.349	0.99
89	4.54	10	17.050	21.416	20.580	21.730	77	0.451	0.99
90	4.54	11	3.129	25.243	23.690	26.000	19	6.729	1.00
90	4.54	11	4.211	26.414	24.250	27.300	22	6.859	1.00
90	4.54	11	5.293	27.577	24.810	28.590	-145	6.411	1.01
90	4.54	11	6.373	28.731	25.370	29.850	-146	6.467	1.01
90	4.54	11	7.455	29.883	25.930	31.100	-155	6.461	1.01
90	4.54	11	8.462	30.949	26.450	32.270	-159	6.553	1.01
90	4.54	11	9.582	32.133	27.030	33.590	-164	6.680	1.01
90	4.54	11	10.702	33.313	27.610	34.920	-171	6.653	1.01
90	4.54	11	11.784	34.448	28.190	36.190	-177	6.687	1.01
90	4.54	11	13.859	36.619	29.300	38.610	-188	6.918	1.01
90	4.54	11	14.941	37.746	29.900	39.860	-196	6.765	1.01
90	4.54	11	16.061	38.910	30.530	41.150	-199	6.776	1.01
90	4.54	11	17.140	40.028	31.140	42.380	16	7.326	1.00
90	4.54	11	18.221	41.147	31.770	43.610	19	7.349	1.00
90	4.54	11	19.187	42.144	32.340	44.700	-221	6.951	1.01
90	4.54	11	12.811	35.531	28.730	37.390	-185	6.723	1.01
91	4.54	11	3.129	22.803	22.630	22.920	574	0.953	0.96
91	4.54	11	4.211	24.125	23.950	24.230	750	0.874	0.95
91	4.54	11	5.293	25.443	25.280	25.600	457	1.089	0.97
91	4.54	11	6.373	26.754	26.620	26.990	636	1.073	0.96
91	4.54	11	7.455	28.064	27.910	28.380	491	1.129	0.97
91	4.54	11	8.462	29.277	29.050	29.680	508	1.209	0.97
91	4.54	11	9.582	30.623	30.300	31.130	707	1.162	0.96
91	4.54	11	10.702	31.963	31.550	32.570	357	1.302	0.98
91	4.54	11	11.784	33.252	32.740	33.960	562	1.215	0.97
91	4.54	11	13.859	35.710	35.020	36.600	392	1.359	0.98
91	4.54	11	14.941	36.983	36.200	37.970	195	1.302	0.99
91	4.54	11	16.061	38.296	37.420	39.370	413	1.228	0.98

# of sub-batch/cycle	enrichment	cycle #	cycle burnup	sub-batch burnup	Min. sub-batch burnup	Max. sub-batch burnup	Decrement bias (pcm)	Sensitivity (%)	Exposure Multiplier from r.m.s. Minimization
91	4.54	11	17.140	39.553	38.600	40.710	214	1.198	0.99
91	4.54	11	18.221	40.809	39.780	42.040	445	1.020	0.98
91	4.54	11	19.187	41.925	40.830	43.220	448	1.129	0.98
91	4.54	11	12.811	34.481	33.870	35.270	380	1.288	0.98
92	4.20	11	7.455	7.973	7.450	8.530	-27	0.312	1.01
92	4.20	11	8.462	9.016	8.380	9.710	-35	0.362	1.01
92	4.20	11	9.582	10.172	9.410	11.040	-45	0.364	1.01
92	4.20	11	10.702	11.324	10.430	12.370	-56	0.398	1.01
92	4.20	11	11.784	12.436	11.420	13.660	-65	0.490	1.01
92	4.20	11	13.859	14.574	13.300	16.140	79	0.630	0.99
92	4.20	11	14.941	15.694	14.290	17.440	181	0.554	0.98
92	4.20	11	16.061	16.858	15.330	18.780	205	0.498	0.98
92	4.20	11	17.140	17.984	16.330	20.070	227	0.600	0.98
92	4.20	11	18.221	19.120	17.340	21.360	243	0.670	0.98
92	4.20	11	19.187	20.138	18.250	22.510	122	0.838	0.99
92	4.20	11	12.811	13.491	12.350	14.890	-74	0.567	1.01
93	4.20	12	3.822	25.335	23.520	27.600	6	2.497	1.00
93	4.20	12	4.905	26.561	24.820	28.770	7	2.679	1.00
93	4.20	12	5.986	27.771	26.110	29.910	0	2.722	1.00
93	4.20	12	7.073	28.977	27.400	31.060	1	2.826	1.00
93	4.20	12	8.156	30.171	28.600	32.190	-5	2.818	1.00
93	4.20	12	8.389	30.427	28.840	32.430	-4	2.608	1.00
93	4.20	12	9.395	31.529	29.890	33.470	-5	2.913	1.00
93	4.20	12	10.285	32.502	30.820	34.390	-5	2.957	1.00
93	4.20	12	11.408	33.724	31.990	35.550	-4	3.000	1.00
93	4.20	12	12.491	34.901	33.110	36.670	-4	3.027	1.00
93	4.20	12	13.576	36.076	34.230	37.790	-4	3.077	1.00
93	4.20	12	14.626	37.211	35.310	38.870	209	3.218	0.99
93	4.20	12	15.593	38.256	36.310	39.860	215	3.343	0.99
93	4.20	12	16.793	39.550	37.550	41.120	216	3.246	0.99
93	4.20	12	18.070	40.925	38.870	42.540	222	3.288	0.99
94	4.20	11	10.702	12.276	11.880	12.680	-13	0.328	1.00
94	4.20	11	11.784	13.500	13.090	13.910	-70	0.451	1.01
94	4.20	11	13.859	15.854	15.430	16.280	-173	0.551	1.02
94	4.20	11	14.941	17.083	16.660	17.510	-102	0.791	1.01
94	4.20	11	16.061	18.361	17.940	18.790	-213	0.807	1.02
94	4.20	11	17.140	19.594	19.170	20.020	110	0.888	0.99
94	4.20	11	18.221	20.834	20.410	21.260	-4	1.039	1.00
94	4.20	11	19.187	21.944	21.520	22.370	-538	0.719	1.04
94	4.20	11	12.811	14.662	14.250	15.080	-80	0.596	1.01
95	4.20	12	3.822	27.104	26.780	27.450	326	1.976	0.98
95	4.20	12	4.905	28.346	28.050	28.660	339	2.051	0.98
95	4.20	12	5.986	29.582	29.310	29.870	0	2.230	1.00
95	4.20	12	7.073	30.822	30.580	31.080	178	2.415	0.99
95	4.20	12	8.156	32.057	31.850	32.280	-190	2.058	1.01
95	4.20	12	8.389	32.322	32.120	32.540	-6	2.307	1.00

# of sub-batch/cycle	enrichment	cycle #	cycle burnup	sub-batch burnup	Min. sub-batch burnup	Max. sub-batch burnup	Decrement bias (pcm)	Sensitivity (%)	Exposure Multiplier from r.m.s. Minimization
95	4.20	12	9.395	33.465	33.290	33.660	-197	2.094	1.01
95	4.20	12	10.285	34.475	34.320	34.640	-201	2.171	1.01
95	4.20	12	11.408	35.746	35.620	35.880	-206	2.127	1.01
95	4.20	12	12.491	36.969	36.870	37.080	-212	2.066	1.01
95	4.20	12	13.576	38.192	38.120	38.280	-217	1.997	1.01
95	4.20	12	14.626	39.371	39.330	39.430	-214	2.085	1.01
95	4.20	12	15.593	40.456	40.430	40.490	5	2.138	1.00
95	4.20	12	16.793	41.798	41.740	41.830	5	1.995	1.00
95	4.20	12	18.070	43.222	43.140	43.280	6	1.902	1.00
96	3.90	11	4.211	4.771	4.520	4.960	-272	0.329	0.94
96	3.90	11	14.941	18.679	17.920	18.960	144	0.380	0.98
96	3.90	11	16.061	20.157	19.380	20.430	170	0.713	0.98
96	3.90	11	17.140	21.573	20.780	21.840	108	0.858	0.99
96	3.90	11	18.221	22.984	22.170	23.250	3	1.161	1.00
96	3.90	11	19.187	24.235	23.420	24.490	-139	1.281	1.01
97	3.90	12	3.822	28.842	27.560	29.720	170	4.928	0.99
97	3.90	12	4.905	29.886	28.210	30.940	175	5.291	0.99
97	3.90	12	5.986	30.919	28.850	32.140	0	5.156	1.00
97	3.90	12	7.073	31.952	29.490	33.340	3	5.273	1.00
97	3.90	12	8.156	32.977	30.140	34.530	-185	5.019	1.01
97	3.90	12	8.389	33.196	30.280	34.780	-183	5.065	1.01
97	3.90	12	9.395	34.142	30.880	35.870	-190	4.952	1.01
97	3.90	12	10.285	34.977	31.410	36.830	-193	4.965	1.01
97	3.90	12	11.408	36.029	32.090	38.030	-198	4.977	1.01
97	3.90	12	12.491	37.042	32.740	39.180	-202	4.886	1.01
97	3.90	12	13.576	38.055	33.410	40.340	-206	4.820	1.01
97	3.90	12	14.626	39.035	34.050	41.450	8	5.096	1.00
97	3.90	12	15.593	39.939	34.650	42.470	3	5.019	1.00
97	3.90	12	16.793	41.060	35.410	43.740	4	4.841	1.00
97	3.90	12	18.070	42.255	36.220	45.080	4	4.764	1.00
98	4.35	12	9.395	11.737	10.760	12.410	5	0.422	1.00
98	4.35	12	10.285	12.860	11.820	13.590	5	0.669	1.00
98	4.35	12	11.408	14.275	13.170	15.060	6	0.994	1.00
98	4.35	12	12.491	15.637	14.470	16.480	7	1.317	1.00
98	4.35	12	13.576	16.999	15.770	17.890	7	1.639	1.00
98	4.35	12	14.626	18.314	17.030	19.250	209	1.640	0.98
98	4.35	12	15.593	19.524	18.200	20.510	119	2.055	0.99
98	4.35	12	16.793	21.021	19.640	22.060	128	2.334	0.99
98	4.35	12	18.070	22.610	21.170	23.700	140	2.586	0.99
99	4.35	13	3.853	27.750	26.330	28.650	8	1.044	1.00
99	4.35	13	4.769	28.813	27.420	29.710	-163	1.016	1.01
99	4.35	13	5.851	30.057	28.680	30.930	-347	1.119	1.02
99	4.35	13	6.933	31.291	29.940	32.150	-534	1.172	1.03
99	4.35	13	8.017	32.518	31.200	33.360	-733	1.163	1.04
99	4.35	13	9.103	33.741	32.450	34.560	-755	1.277	1.04
99	4.35	13	9.896	34.629	33.360	35.440	-770	1.232	1.04

# of sub-batch/cycle	enrichment	cycle #	cycle burnup	sub-batch burnup	Min. sub-batch burnup	Max. sub-batch burnup	Decrement bias (pcm)	Sensitivity (%)	Exposure Multiplier from r.m.s. Minimization
99	4.35	13	11.249	36.140	34.900	36.930	-592	1.251	1.03
99	4.35	13	12.332	37.344	36.140	38.110	-806	1.203	1.04
99	4.35	13	13.415	38.544	37.370	39.300	-407	1.408	1.02
99	4.35	13	14.381	39.610	38.470	40.350	-418	1.378	1.02
99	4.35	13	15.581	40.930	39.820	41.650	-428	1.344	1.02
99	4.35	13	16.664	42.119	41.040	42.820	-211	1.459	1.01
99	4.35	13	17.747	43.303	42.260	43.990	-211	1.469	1.01
99	4.35	13	18.792	44.443	43.430	45.110	-445	1.391	1.02
99	4.35	13	20.107	45.873	44.900	46.520	18	1.665	1.00
100	4.66	12	8.156	9.270	8.460	10.020	32	0.571	0.99
100	4.66	12	8.389	9.536	8.690	10.310	-9	0.714	1.00
100	4.66	12	9.395	10.690	9.710	11.560	43	0.788	0.99
100	4.66	12	10.285	11.712	10.610	12.680	50	1.007	0.99
100	4.66	12	11.408	13.001	11.750	14.080	60	1.278	0.99
100	4.66	12	12.491	14.244	12.840	15.440	71	1.482	0.99
100	4.66	12	13.576	15.489	13.940	16.790	78	1.753	0.99
100	4.66	12	14.626	16.695	15.000	18.100	301	1.532	0.97
100	4.66	12	15.593	17.806	15.980	19.310	217	1.894	0.98
100	4.66	12	16.793	19.186	17.210	20.800	121	2.247	0.99
100	4.66	12	18.070	20.654	18.510	22.390	132	2.524	0.99
101	4.66	13	3.853	25.982	23.590	27.740	-139	2.248	1.01
101	4.66	13	4.769	27.085	24.660	28.840	-151	2.328	1.01
101	4.66	13	5.851	28.372	25.900	30.120	-162	2.684	1.01
101	4.66	13	6.933	29.647	27.130	31.390	-169	2.989	1.01
101	4.66	13	8.017	30.913	28.350	32.660	-3	3.310	1.00
101	4.66	13	9.103	32.173	29.570	33.910	-183	3.368	1.01
101	4.66	13	9.896	33.088	30.450	34.820	-186	3.403	1.01
101	4.66	13	11.249	34.642	31.960	36.360	-189	3.356	1.01
101	4.66	13	12.332	35.881	33.150	37.600	-194	3.521	1.01
101	4.66	13	13.415	37.113	34.350	38.820	5	3.807	1.00
101	4.66	13	14.381	38.209	35.420	39.910	2	3.599	1.00
101	4.66	13	15.581	39.565	36.740	41.250	3	3.607	1.00
101	4.66	13	16.664	40.784	37.930	42.460	225	3.895	0.99
101	4.66	13	17.747	41.999	39.120	43.670	12	3.691	1.00
101	4.66	13	18.792	43.167	40.270	44.820	241	4.013	0.99
101	4.66	13	20.107	44.632	41.720	46.280	252	4.042	0.99
102	4.66	14	8.338	46.406	45.930	46.780	482	0.313	0.98
102	4.66	14	10.504	47.111	46.940	47.340	-513	0.304	1.02
102	4.66	14	11.587	47.468	47.450	47.620	-261	0.379	1.01
102	4.66	14	12.671	47.830	47.800	48.010	-261	0.391	1.01
102	4.66	14	13.754	48.196	48.090	48.530	255	0.323	0.99
102	4.66	14	15.916	48.943	48.690	49.580	530	0.324	0.98
102	4.66	14	18.084	49.721	49.320	50.660	537	0.321	0.98
103	4.35	12	13.576	17.629	17.550	17.700	-8	0.397	1.00
103	4.35	12	14.626	19.037	18.940	19.120	246	0.366	0.97
103	4.35	12	15.593	20.332	20.220	20.430	-94	0.726	1.01



# of sub-batch/cycle	enrichment	cycle #	cycle burnup	sub-batch burnup	Min. sub-batch burnup	Max. sub-batch burnup	Decrement bias (pcm)	Sensitivity (%)	Exposure Multiplier from r.m.s. Minimization
103	4.35	12	16.793	21.933	21.810	22.040	-2	0.847	1.00
103	4.35	12	18.070	23.629	23.490	23.760	-2	0.986	1.00
104	4.35	13	3.853	26.206	26.040	26.260	318	0.441	0.98
104	4.35	13	4.769	26.685	26.470	26.780	-161	0.357	1.01
104	4.35	13	5.851	27.250	26.990	27.390	-497	0.335	1.03
104	4.35	13	6.933	27.817	27.510	28.000	-518	0.380	1.03
104	4.35	13	8.017	28.387	28.040	28.610	-364	0.408	1.02
104	4.35	13	9.103	28.962	28.570	29.230	-551	0.381	1.03
104	4.35	13	9.896	29.383	28.960	29.680	-561	0.412	1.03
104	4.35	13	11.249	30.109	29.640	30.460	1058	0.366	0.94
104	4.35	13	12.332	30.697	30.190	31.090	700	0.527	0.96
104	4.35	13	13.415	31.291	30.740	31.720	915	0.477	0.95
104	4.35	13	14.381	31.827	31.240	32.300	933	0.457	0.95
104	4.35	13	15.581	32.502	31.870	33.020	760	0.498	0.96
104	4.35	13	16.664	33.121	32.450	33.680	1187	0.311	0.94
104	4.35	13	17.747	33.749	33.040	34.350	1210	0.348	0.94
104	4.35	13	18.792	34.363	33.610	35.010	1238	0.368	0.94
104	4.35	13	20.107	35.150	34.350	35.850	1491	0.401	0.93
105	4.35	14	4.053	37.211	36.460	37.850	-885	0.394	1.04
105	4.35	14	5.136	37.706	36.980	38.330	-676	0.444	1.03
105	4.35	14	6.218	38.204	37.490	38.810	-899	0.442	1.04
105	4.35	14	7.263	38.687	38.000	39.270	-241	0.664	1.01
105	4.35	14	8.338	39.187	38.510	39.750	-472	0.666	1.02
105	4.35	14	9.420	39.693	39.040	40.240	218	0.911	0.99
105	4.35	14	10.504	40.203	39.570	40.730	-10	0.907	1.00
105	4.35	14	11.587	40.718	40.100	41.230	-12	0.964	1.00
105	4.35	14	12.671	41.237	40.630	41.730	-14	0.971	1.00
105	4.35	14	13.754	41.761	41.170	42.240	-2	1.015	1.00
105	4.35	14	14.839	42.291	41.720	42.750	231	1.099	0.99
105	4.35	14	15.916	42.823	42.270	43.270	238	1.087	0.99
105	4.35	14	17.000	43.366	42.830	43.800	245	1.140	0.99
105	4.35	14	18.084	43.916	43.400	44.330	751	0.853	0.97
105	4.35	14	19.168	44.473	43.970	44.880	507	1.020	0.98
106	4.35	12	11.408	14.994	14.710	15.090	9	0.308	1.00
106	4.35	12	12.491	16.442	16.150	16.540	74	0.494	0.99
106	4.35	12	13.576	17.890	17.600	18.000	11	0.732	1.00
106	4.35	12	14.626	19.286	18.990	19.400	204	0.686	0.98
106	4.35	12	15.593	20.569	20.270	20.690	115	1.151	0.99
106	4.35	12	16.793	22.154	21.850	22.280	11	1.227	1.00
106	4.35	12	18.070	23.832	23.520	23.960	12	1.370	1.00
107	4.35	13	3.853	28.905	28.620	28.990	988	0.589	0.94
107	4.35	13	4.769	29.961	29.650	30.050	506	0.820	0.97
107	4.35	13	5.851	31.200	30.850	31.310	-6	1.137	1.00
107	4.35	13	6.933	32.432	32.040	32.560	-367	1.109	1.02
107	4.35	13	8.017	33.658	33.210	33.810	-743	1.001	1.04
107	4.35	13	9.103	34.880	34.370	35.050	-767	1.003	1.04

# of sub-batch/cycle	enrichment	cycle #	cycle burnup	sub-batch burnup	Min. sub-batch burnup	Max. sub-batch burnup	Decrement bias (pcm)	Sensitivity (%)	Exposure Multiplier from r.m.s. Minimization
107	4.35	13	9.896	35.768	35.210	35.950	-781	0.937	1.04
107	4.35	13	11.249	37.276	36.640	37.490	-799	0.912	1.04
107	4.35	13	12.332	38.479	37.780	38.720	-612	1.036	1.03
107	4.35	13	13.415	39.675	38.910	39.930	-199	1.272	1.01
107	4.35	13	14.381	40.739	39.920	41.020	-417	1.161	1.02
107	4.35	13	15.581	42.055	41.170	42.360	-209	1.216	1.01
107	4.35	13	16.664	43.240	42.290	43.570	-206	1.214	1.01
107	4.35	13	17.747	44.420	43.410	44.770	14	1.244	1.00
107	4.35	13	18.792	45.555	44.480	45.930	16	1.222	1.00
107	4.35	13	20.107	46.980	45.840	47.390	256	1.470	0.99
108	4.40	13	12.332	15.854	15.860	16.080	-313	0.345	1.04
108	4.40	13	14.381	18.503	18.490	18.710	-505	0.426	1.05
108	4.40	13	15.581	20.043	20.010	20.230	-450	0.521	1.04
108	4.40	13	16.664	21.426	21.380	21.600	-357	0.615	1.03
108	4.40	13	17.747	22.801	22.740	22.970	-252	0.717	1.02
108	4.40	13	18.792	24.120	24.040	24.270	-118	0.877	1.01
108	4.40	13	20.107	25.772	25.670	25.910	-135	0.945	1.01
109	4.40	14	11.587	35.000	32.850	38.790	-608	0.302	1.03
109	4.40	14	12.671	35.794	33.450	39.920	-823	0.355	1.04
109	4.40	14	13.754	36.591	34.060	41.050	-626	0.374	1.03
109	4.40	14	14.839	37.391	34.670	42.170	-633	0.396	1.03
109	4.40	14	15.916	38.189	35.280	43.290	-424	0.431	1.02
109	4.40	14	17.000	38.997	35.910	44.410	-207	0.513	1.01
109	4.40	14	18.084	39.810	36.540	45.540	17	0.487	1.00
109	4.40	14	19.168	40.628	37.180	46.660	249	0.547	0.99
110	4.45	13	11.249	13.909	12.900	14.730	-335	0.341	1.06
110	4.45	13	13.415	16.655	15.500	17.570	-481	0.463	1.06
110	4.45	13	14.381	17.878	16.660	18.840	-367	0.691	1.04
110	4.45	13	15.581	19.396	18.100	20.400	-315	0.900	1.03
110	4.45	13	16.664	20.765	19.400	21.810	-341	0.974	1.03
110	4.45	13	17.747	22.130	20.700	23.210	-249	1.219	1.02
110	4.45	13	18.792	23.445	21.950	24.560	-129	1.363	1.01
110	4.45	13	20.107	25.096	23.530	26.260	-285	1.397	1.02
111	4.45	14	4.053	29.883	28.690	31.370	-17	0.679	1.00
111	4.45	14	5.136	31.015	29.940	32.620	-13	0.629	1.00
111	4.45	14	6.218	32.142	30.970	33.880	-15	0.693	1.00
111	4.45	14	7.263	33.227	31.660	35.090	-8	0.752	1.00
111	4.45	14	8.338	34.341	32.370	36.340	184	0.944	0.99
111	4.45	14	9.420	35.461	33.080	37.610	396	0.912	0.98
111	4.45	14	10.504	36.581	33.790	38.870	405	0.928	0.98
111	4.45	14	11.587	37.699	34.500	40.140	205	0.907	0.99
111	4.45	14	12.671	38.816	35.210	41.400	209	0.907	0.99
111	4.45	14	13.754	39.932	35.930	42.660	438	1.018	0.98
111	4.45	14	14.839	41.047	36.650	43.910	-218	0.837	1.01
111	4.45	14	15.916	42.154	37.380	45.150	6	0.923	1.00
111	4.45	14	17.000	43.266	38.110	46.400	235	0.931	0.99

# of sub-batch/cycle	enrichment	cycle #	cycle burnup	sub-batch burnup	Min. sub-batch burnup	Max. sub-batch burnup	Decrement bias (pcm)	Sensitivity (%)	Exposure Multiplier from r.m.s. Minimization
111	4.45	14	18.084	44.377	38.850	47.630	483	0.941	0.98
111	4.45	14	19.168	45.487	39.600	48.870	487	0.970	0.98
112	4.75	13	13.415	14.666	14.270	15.450	-180	0.390	1.02
112	4.75	13	14.381	15.750	15.310	16.620	-366	0.333	1.04
112	4.75	13	15.581	17.100	16.600	18.070	-604	0.306	1.06
112	4.75	13	16.664	18.322	17.780	19.390	-435	0.513	1.04
112	4.75	13	17.747	19.546	18.950	20.700	-361	0.565	1.03
112	4.75	13	18.792	20.730	20.090	21.970	-380	0.563	1.03
112	4.75	13	20.107	22.224	21.530	23.560	-137	0.856	1.01
113	4.75	14	4.053	27.537	26.830	28.890	-1455	0.302	1.09
113	4.75	14	5.136	28.820	28.120	30.150	-1179	0.471	1.07
113	4.75	14	6.218	30.094	29.410	31.400	-1054	0.602	1.06
113	4.75	14	7.263	31.319	30.640	32.590	-727	0.885	1.04
113	4.75	14	8.338	32.572	31.910	33.810	-936	0.878	1.05
113	4.75	14	9.420	33.827	33.180	35.030	-384	1.190	1.02
113	4.75	14	10.504	35.080	34.450	36.250	-400	1.238	1.02
113	4.75	14	11.587	36.326	35.720	37.460	-210	1.434	1.01
113	4.75	14	12.671	37.568	36.980	38.660	-215	1.473	1.01
113	4.75	14	13.754	38.805	38.230	39.860	214	1.820	0.99
113	4.75	14	14.839	40.039	39.480	41.050	219	1.774	0.99
113	4.75	14	15.916	41.260	40.720	42.240	230	1.799	0.99
113	4.75	14	17.000	42.485	41.970	43.430	-219	1.523	1.01
113	4.75	14	18.084	43.707	43.200	44.610	248	1.735	0.99
113	4.75	14	19.168	44.925	44.440	45.800	-456	1.328	1.02
114	4.75	13	11.249	12.909	12.440	13.200	-254	0.339	1.04
114	4.75	13	12.332	14.168	13.660	14.510	-176	0.483	1.02
114	4.75	13	13.415	15.429	14.880	15.810	188	0.490	0.97
114	4.75	13	14.381	16.555	15.980	16.980	217	0.594	0.97
114	4.75	13	15.581	17.957	17.340	18.430	349	0.620	0.96
114	4.75	13	16.664	19.227	18.580	19.730	398	0.701	0.96
114	4.75	13	17.747	20.498	19.820	21.040	439	0.785	0.96
114	4.75	13	18.792	21.728	21.030	22.300	481	0.917	0.96
114	4.75	13	20.107	23.279	22.550	23.890	259	1.272	0.98
115	4.75	14	4.053	28.721	27.980	29.330	-174	3.580	1.01
115	4.75	14	5.136	29.965	29.300	30.550	-173	3.879	1.01
115	4.75	14	6.218	31.185	30.490	31.750	-178	3.938	1.01
115	4.75	14	7.263	32.346	31.620	32.890	-178	3.978	1.01
115	4.75	14	8.338	33.527	32.750	34.040	-181	4.157	1.01
115	4.75	14	9.420	34.707	33.880	35.200	9	4.563	1.00
115	4.75	14	10.504	35.880	35.010	36.350	10	4.326	1.00
115	4.75	14	11.587	37.048	36.130	37.490	9	4.594	1.00
115	4.75	14	12.671	38.211	37.250	38.630	9	4.779	1.00
115	4.75	14	13.754	39.372	38.370	39.770	227	5.063	0.99
115	4.75	14	14.839	40.533	39.490	40.910	233	5.162	0.99
115	4.75	14	15.916	41.685	40.600	42.050	244	5.104	0.99
115	4.75	14	17.000	42.845	41.730	43.240	237	5.359	0.99

# of sub-batch/cycle	enrichment	cycle #	cycle burnup	sub-batch burnup	Min. sub-batch burnup	Max. sub-batch burnup	Decrement bias (pcm)	Sensitivity (%)	Exposure Multiplier from r.m.s. Minimization
115	4.75	14	18.084	44.005	42.860	44.470	487	5.468	0.98
115	4.75	14	19.168	45.165	44.000	45.690	248	5.469	0.99
116	4.75	15	3.277	46.740	45.710	47.100	1008	0.531	0.96
116	4.75	15	4.361	47.152	46.170	47.530	504	0.712	0.98
116	4.75	15	5.444	47.566	46.640	47.970	1022	0.582	0.96
116	4.75	15	6.489	47.966	47.090	48.390	510	0.806	0.98
116	4.75	15	7.188	48.235	47.390	48.670	-2	0.780	1.00
116	4.75	15	8.617	48.784	48.010	49.250	-514	0.607	1.02
116	4.75	15	9.738	49.217	48.490	49.700	-514	0.634	1.02
116	4.75	15	10.822	49.638	48.960	50.150	-773	0.580	1.03
116	4.75	15	11.903	50.061	49.440	50.590	-1293	0.461	1.05
116	4.75	15	12.984	50.487	49.910	51.040	-1563	0.422	1.06
116	4.75	15	14.067	50.919	50.270	51.490	-263	0.748	1.01
116	4.75	15	15.073	51.326	50.590	51.920	-266	0.683	1.01
116	4.75	15	16.209	51.792	50.960	52.410	-267	0.744	1.01
116	4.75	15	17.293	52.243	51.320	52.880	-1069	0.708	1.04
116	4.75	15	18.376	52.703	51.690	53.370	-806	0.683	1.03
117	4.45	13	13.415	17.340	16.960	17.550	-41	0.478	1.01
117	4.45	13	14.381	18.610	18.200	18.840	87	0.591	0.99
117	4.45	13	15.581	20.183	19.750	20.450	13	1.022	1.00
117	4.45	13	16.664	21.599	21.140	21.890	14	1.310	1.00
117	4.45	13	17.747	23.008	22.520	23.320	250	1.314	0.98
117	4.45	13	18.792	24.361	23.850	24.700	276	1.461	0.98
117	4.45	13	20.107	26.055	25.520	26.430	18	1.983	1.00
118	4.45	14	4.053	31.261	30.880	31.510	-1056	1.470	1.06
118	4.45	14	5.136	32.482	32.070	32.750	-903	1.684	1.05
118	4.45	14	6.218	33.693	33.230	33.990	-928	1.784	1.05
118	4.45	14	7.263	34.858	34.330	35.190	-570	2.328	1.03
118	4.45	14	8.338	36.052	35.450	36.440	-778	2.299	1.04
118	4.45	14	9.420	37.251	36.560	37.690	-395	2.851	1.02
118	4.45	14	10.504	38.450	37.660	38.950	-402	2.660	1.02
118	4.45	14	11.587	39.646	38.750	40.210	-203	3.239	1.01
118	4.45	14	12.671	40.840	39.850	41.470	-208	3.353	1.01
118	4.45	14	13.754	42.032	40.940	42.730	14	3.676	1.00
118	4.45	14	14.839	43.223	42.030	43.980	-218	3.240	1.01
118	4.45	14	15.916	44.404	43.110	45.230	13	3.453	1.00
118	4.45	14	17.000	45.590	44.210	46.470	-231	3.384	1.01
118	4.45	14	18.084	46.775	45.300	47.710	-220	3.061	1.01
118	4.45	14	19.168	47.956	46.400	48.950	5	3.626	1.00
119	4.45	14	14.839	18.729	17.570	19.850	410	0.358	0.95
119	4.45	14	15.916	20.126	18.880	21.320	388	0.463	0.96
119	4.45	14	17.000	21.529	20.190	22.800	442	0.534	0.96
119	4.45	14	18.084	22.927	21.510	24.270	381	0.640	0.97
119	4.45	14	19.168	24.321	22.820	25.720	413	0.827	0.97
120	4.45	15	3.277	28.342	27.110	29.480	-154	3.812	1.01
120	4.45	15	4.361	29.505	28.350	30.730	-163	3.966	1.01

# of sub-batch/cycle	enrichment	cycle #	cycle burnup	sub-batch burnup	Min. sub-batch burnup	Max. sub-batch burnup	Decrement bias (pcm)	Sensitivity (%)	Exposure Multiplier from r.m.s. Minimization
120	4.45	15	5.444	30.660	29.270	31.970	-167	4.138	1.01
120	4.45	15	6.489	31.768	29.870	33.160	-176	4.313	1.01
120	4.45	15	7.188	32.506	30.270	33.950	-180	4.419	1.01
120	4.45	15	8.617	34.010	31.080	35.570	4	4.741	1.00
120	4.45	15	9.738	35.186	31.720	36.830	3	4.824	1.00
120	4.45	15	10.822	36.320	32.330	38.050	3	4.806	1.00
120	4.45	15	11.903	37.449	32.950	39.260	-202	4.612	1.01
120	4.45	15	12.984	38.575	33.570	40.510	-425	4.443	1.02
120	4.45	15	14.067	39.703	34.190	41.810	4	4.924	1.00
120	4.45	15	15.073	40.748	34.780	43.010	7	4.970	1.00
120	4.45	15	16.209	41.928	35.450	44.360	9	5.008	1.00
120	4.45	15	17.293	43.051	36.100	45.650	-229	4.856	1.01
120	4.45	15	18.376	44.173	36.750	46.920	-229	4.990	1.01
121	4.45	16	3.178	45.165	38.960	48.010	239	1.389	0.99
121	4.45	16	4.222	45.537	39.500	48.320	729	1.521	0.97
121	4.45	16	5.343	45.935	40.070	48.650	737	1.502	0.97
121	4.45	16	6.426	46.318	40.620	48.970	994	1.285	0.96
121	4.45	16	7.509	46.699	41.160	49.280	1001	1.300	0.96
121	4.45	16	8.592	47.080	41.700	49.600	1017	1.254	0.96
121	4.45	16	9.676	47.462	42.230	49.910	256	1.464	0.99
121	4.45	16	10.758	47.845	42.770	50.230	518	1.476	0.98
121	4.45	16	11.842	48.232	43.310	50.550	262	1.538	0.99
121	4.45	16	12.925	48.621	43.850	50.870	-246	1.312	1.01
121	4.45	16	14.011	49.017	44.400	51.200	-256	1.388	1.01
121	4.45	16	15.092	49.417	44.950	51.530	-255	1.397	1.01
121	4.45	16	15.247	49.475	45.030	51.580	10	1.515	1.00
121	4.45	16	15.285	49.489	45.050	51.590	528	1.499	0.98
121	4.45	16	16.176	49.825	45.510	51.880	534	1.391	0.98
122	4.75	14	10.504	12.857	12.630	13.070	234	0.383	0.96
122	4.75	14	11.587	14.173	13.910	14.430	276	0.459	0.96
122	4.75	14	12.671	15.485	15.170	15.790	234	0.693	0.97
122	4.75	14	13.754	16.794	16.440	17.140	368	0.760	0.96
122	4.75	14	14.839	18.101	17.700	18.490	100	1.027	0.99
122	4.75	14	15.916	19.396	18.950	19.830	343	0.985	0.97
122	4.75	14	17.000	20.697	20.210	21.170	131	1.304	0.99
122	4.75	14	18.084	21.997	21.470	22.510	137	1.413	0.99
122	4.75	14	19.168	23.295	22.730	23.850	441	1.229	0.97
123	4.75	15	3.277	27.697	27.080	28.290	469	2.864	0.97
123	4.75	15	4.361	28.996	28.370	29.560	322	3.324	0.98
123	4.75	15	5.444	30.286	29.640	30.860	333	3.686	0.98
123	4.75	15	6.489	31.525	30.870	32.100	169	4.107	0.99
123	4.75	15	7.188	32.350	31.680	32.930	172	4.217	0.99
123	4.75	15	8.617	34.032	33.340	34.610	380	4.019	0.98
123	4.75	15	9.738	35.345	34.640	35.920	194	4.381	0.99
123	4.75	15	10.822	36.611	35.890	37.170	202	4.337	0.99
123	4.75	15	11.903	37.868	37.130	38.410	196	4.218	0.99

# of sub-batch/cycle	enrichment	cycle #	cycle burnup	sub-batch burnup	Min. sub-batch burnup	Max. sub-batch burnup	Decrement bias (pcm)	Sensitivity (%)	Exposure Multiplier from r.m.s. Minimization
123	4.75	15	12.984	39.121	38.370	39.650	-229	3.860	1.01
123	4.75	15	14.067	40.373	39.610	40.880	214	4.286	0.99
123	4.75	15	15.073	41.533	40.760	42.010	221	4.322	0.99
123	4.75	15	16.209	42.839	42.060	43.290	225	4.290	0.99
123	4.75	15	17.293	44.079	43.290	44.540	-19	4.110	1.00
123	4.75	15	18.376	45.316	44.520	45.870	220	4.412	0.99
124	4.40	15	5.444	6.516	5.710	6.990	15	0.316	1.04
124	4.40	15	6.489	7.799	6.800	8.340	-7	0.423	1.03
124	4.40	15	7.188	8.659	7.520	9.240	-2	0.648	1.00
124	4.40	15	8.617	10.427	8.990	11.090	118	0.303	0.92
124	4.40	15	9.738	11.818	10.140	12.550	105	0.607	0.96
124	4.40	15	10.822	13.167	11.250	13.970	146	0.572	0.96
124	4.40	15	11.903	14.514	12.350	15.380	229	0.488	0.95
124	4.40	15	12.984	15.862	13.450	16.830	109	0.854	0.98
124	4.40	15	14.067	17.213	14.560	18.280	220	0.599	0.97
124	4.40	15	15.073	18.467	15.580	19.630	349	0.576	0.96
124	4.40	15	16.209	19.882	16.740	21.150	494	0.527	0.95
124	4.40	15	17.293	21.228	17.850	22.590	217	0.847	0.98
124	4.40	15	18.376	22.573	18.970	24.030	245	0.939	0.98
125	4.40	16	3.178	27.498	24.030	29.020	3	3.803	1.00
125	4.40	16	4.222	28.737	25.330	30.260	6	4.129	1.00
125	4.40	16	5.343	30.057	26.700	31.550	179	3.894	0.99
125	4.40	16	6.426	31.327	28.010	32.780	186	4.041	0.99
125	4.40	16	7.509	32.589	29.300	34.000	193	4.115	0.99
125	4.40	16	8.592	33.847	30.590	35.270	391	3.916	0.98
125	4.40	16	9.676	35.101	31.870	36.590	201	4.058	0.99
125	4.40	16	10.758	36.350	33.140	37.920	416	3.979	0.98
125	4.40	16	11.842	37.598	34.410	39.250	215	4.208	0.99
125	4.40	16	12.925	38.840	35.670	40.580	220	4.240	0.99
125	4.40	16	14.011	40.081	36.930	41.910	3	4.696	1.00
125	4.40	16	15.092	41.314	38.180	43.230	0	4.655	1.00
125	4.40	16	15.247	41.489	38.360	43.420	226	4.413	0.99
125	4.40	16	15.285	41.533	38.400	43.470	231	4.467	0.99
125	4.40	16	16.176	42.545	39.430	44.550	235	4.403	0.99
126	4.40	17	3.655	44.377	43.460	45.140	719	0.875	0.97
126	4.40	17	4.737	44.843	43.930	45.570	726	0.786	0.97
126	4.40	17	5.821	45.311	44.400	46.000	-11	0.871	1.00
126	4.40	17	6.904	45.780	44.880	46.430	-10	0.843	1.00
126	4.40	17	7.986	46.249	45.350	46.860	-7	0.854	1.00
126	4.40	17	9.031	46.703	45.810	47.280	-5	0.882	1.00
126	4.40	17	10.152	47.193	46.310	47.730	-251	0.735	1.01
126	4.40	17	11.235	47.669	46.790	48.160	0	0.901	1.00
126	4.40	17	12.317	48.148	47.280	48.600	-254	0.818	1.01
126	4.40	17	13.360	48.613	47.750	49.030	516	0.784	0.98
126	4.40	17	14.482	49.121	48.260	49.490	-258	0.889	1.01
126	4.40	17	15.564	49.616	48.760	49.940	-2	0.972	1.00

# of sub-batch/cycle	enrichment	cycle #	cycle burnup	sub-batch burnup	Min. sub-batch burnup	Max. sub-batch burnup	Decrement bias (pcm)	Sensitivity (%)	Exposure Multiplier from r.m.s. Minimization
126	4.40	17	16.622	50.107	49.260	50.490	261	1.075	0.99
127	4.73	15	9.738	11.911	11.480	12.560	39	0.412	0.99
127	4.73	15	10.822	13.248	12.720	14.010	96	0.435	0.98
127	4.73	15	11.903	14.582	13.960	15.470	-56	0.631	1.01
127	4.73	15	12.984	15.915	15.200	16.930	-359	0.406	1.05
127	4.73	15	14.067	17.250	16.440	18.400	8	0.880	1.00
127	4.73	15	15.073	18.491	17.590	19.760	11	0.963	1.00
127	4.73	15	16.209	19.891	18.890	21.300	-90	1.110	1.01
127	4.73	15	17.293	21.225	20.130	22.760	-229	1.231	1.02
127	4.73	15	18.376	22.559	21.370	24.220	5	1.458	1.00
128	4.73	16	3.178	27.613	26.270	29.360	2	2.070	1.00
128	4.73	16	4.222	28.886	27.520	30.650	-160	2.190	1.01
128	4.73	16	5.343	30.237	28.840	32.020	-161	2.405	1.01
128	4.73	16	6.426	31.532	30.100	33.340	-167	2.457	1.01
128	4.73	16	7.509	32.818	31.340	34.660	10	2.581	1.00
128	4.73	16	8.592	34.096	32.570	35.990	204	2.580	0.99
128	4.73	16	9.676	35.369	33.790	37.320	203	2.498	0.99
128	4.73	16	10.758	36.635	34.990	38.640	420	2.431	0.98
128	4.73	16	11.842	37.899	36.190	39.970	422	2.449	0.98
128	4.73	16	12.925	39.157	37.390	41.300	437	2.324	0.98
128	4.73	16	14.011	40.413	38.580	42.620	220	2.687	0.99
128	4.73	16	15.092	41.662	39.770	43.930	222	2.693	0.99
128	4.73	16	15.247	41.839	39.940	44.120	232	2.532	0.99
128	4.73	16	15.285	41.884	39.980	44.170	232	2.732	0.99
128	4.73	16	16.176	42.908	40.950	45.250	235	2.607	0.99
129	4.73	17	3.655	46.764	45.100	48.630	-507	0.776	1.02
129	4.73	17	4.737	47.160	45.600	48.850	-755	0.764	1.03
129	4.73	17	5.821	47.557	46.110	49.070	-10	1.044	1.00
129	4.73	17	6.904	47.954	46.610	49.290	-10	1.014	1.00
129	4.73	17	7.986	48.352	47.110	49.510	-514	0.859	1.02
129	4.73	17	9.031	48.738	47.590	49.730	-515	0.865	1.02
129	4.73	17	10.152	49.154	48.110	49.960	-771	0.727	1.03
129	4.73	17	11.235	49.559	48.620	50.190	-1029	0.741	1.04
129	4.73	17	12.317	49.967	49.120	50.490	-523	0.897	1.02
129	4.73	17	13.360	50.365	49.620	50.960	-785	0.792	1.03
129	4.73	17	14.482	50.799	50.160	51.460	-267	1.097	1.01
129	4.73	17	15.564	51.224	50.690	51.960	-1	1.250	1.00
129	4.73	17	16.622	51.646	51.210	52.450	538	1.264	0.98
130	4.38	16	8.592	10.393	9.080	11.090	9	0.311	1.01
130	4.38	16	15.285	18.931	15.730	20.010	163	0.333	0.98
130	4.38	16	16.176	20.072	16.620	21.220	276	0.392	0.97
131	4.38	17	3.655	27.485	23.590	28.790	-150	8.137	1.01
131	4.38	17	4.737	28.787	24.940	30.060	-161	8.273	1.01
131	4.38	17	5.821	30.071	26.270	31.300	-163	8.158	1.01
131	4.38	17	6.904	31.338	27.600	32.520	-163	8.202	1.01
131	4.38	17	7.986	32.592	28.910	33.770	-169	8.236	1.01

# of sub-batch/cycle	enrichment	cycle #	cycle burnup	sub-batch burnup	Min. sub-batch burnup	Max. sub-batch burnup	Decrement bias (pcm)	Sensitivity (%)	Exposure Multiplier from r.m.s. Minimization
131	4.38	17	9.031	33.791	30.170	35.030	-170	8.084	1.01
131	4.38	17	10.152	35.069	31.520	36.380	-179	8.184	1.01
131	4.38	17	11.235	36.296	32.810	37.680	-186	8.142	1.01
131	4.38	17	12.317	37.515	34.100	38.990	-191	8.188	1.01
131	4.38	17	13.360	38.685	35.340	40.250	-191	8.306	1.01
131	4.38	17	14.482	39.940	36.660	41.600	-201	8.428	1.01
131	4.38	17	15.564	41.145	37.930	42.900	13	8.988	1.00
131	4.38	17	16.622	42.321	39.170	44.160	18	9.326	1.00
132	4.90	16	8.592	10.361	10.170	10.470	51	0.434	0.99
132	4.90	16	9.676	11.685	11.410	11.850	133	0.567	0.97
132	4.90	16	10.758	13.004	12.650	13.230	281	0.540	0.95
132	4.90	16	11.842	14.320	13.890	14.620	142	1.111	0.98
132	4.90	16	12.925	15.632	15.120	16.000	378	1.068	0.95
132	4.90	16	14.011	16.945	16.360	17.380	172	1.786	0.98
132	4.90	16	15.092	18.253	17.600	18.760	101	2.199	0.99
132	4.90	16	15.247	18.440	17.770	18.950	205	2.026	0.98
132	4.90	16	15.285	18.487	17.820	19.000	117	2.282	0.99
132	4.90	16	16.176	19.563	18.830	20.130	132	2.584	0.99
133	4.90	17	3.655	26.822	25.790	27.670	-159	2.527	1.01
133	4.90	17	4.737	28.163	27.080	29.050	-166	2.517	1.01
133	4.90	17	5.821	29.501	28.370	30.410	-174	2.772	1.01
133	4.90	17	6.904	30.834	29.660	31.760	-9	2.986	1.00
133	4.90	17	7.986	32.162	30.930	33.100	-11	3.086	1.00
133	4.90	17	9.031	33.441	32.170	34.370	175	3.304	0.99
133	4.90	17	10.152	34.810	33.480	35.730	178	3.269	0.99
133	4.90	17	11.235	36.128	34.750	37.100	184	3.375	0.99
133	4.90	17	12.317	37.442	36.020	38.480	190	3.384	0.99
133	4.90	17	13.360	38.705	37.240	39.810	407	3.388	0.98
133	4.90	17	14.482	40.058	38.550	41.240	202	3.428	0.99
133	4.90	17	15.564	41.359	39.810	42.600	224	3.267	0.99
133	4.90	17	16.622	42.626	41.040	43.930	232	3.525	0.99
134	4.20	17	4.737	5.783	5.480	6.100	7	0.423	1.01
134	4.20	17	5.821	7.119	6.770	7.460	-5	0.514	0.99
134	4.20	17	6.904	8.454	8.050	8.860	5	0.406	1.00
134	4.20	17	7.986	9.785	9.330	10.280	72	0.347	0.95
134	4.20	17	9.031	11.066	10.570	11.650	109	0.338	0.96
134	4.20	17	15.564	19.008	18.190	20.250	209	0.424	0.98
134	4.20	17	16.622	20.286	19.420	21.640	466	0.349	0.96
135	4.82	17	9.031	10.297	9.590	11.080	-17	0.515	1.00
135	4.82	17	10.152	11.589	10.750	12.490	125	0.568	0.97
135	4.82	17	11.235	12.833	11.870	13.840	101	0.798	0.98
135	4.82	17	12.317	14.075	12.990	15.190	-12	1.299	1.00
135	4.82	17	13.360	15.272	14.070	16.480	-165	1.287	1.02
135	4.82	17	14.482	16.559	15.230	17.870	-100	1.791	1.01
135	4.82	17	15.564	17.800	16.350	19.200	91	2.016	0.99
135	4.82	17	16.622	19.015	17.450	20.500	1	2.571	1.00



# of sub-batch/cycle	enrichment	cycle #	cycle burnup	sub-batch burnup	Min. sub-batch burnup	Max. sub-batch burnup	Decrement bias (pcm)	Sensitivity (%)	Exposure Multiplier from r.m.s. Minimization
136	4.20	17	16.622	21.104	21.030	21.160	426	0.422	0.95
137	3.40	11	4.672	5.872	5.740	6.000	80	0.353	0.96
137	3.40	11	5.072	6.379	6.240	6.510	114	0.340	0.95
137	3.40	11	5.607	7.059	6.910	7.200	124	0.339	0.95
137	3.40	11	6.690	8.437	8.280	8.600	64	0.610	0.98
137	3.40	11	7.773	9.817	9.650	10.000	293	0.454	0.93
137	3.40	11	8.859	11.204	11.010	11.410	154	0.846	0.97
137	3.40	11	9.942	12.586	12.330	12.810	126	1.138	0.98
137	3.40	11	10.671	13.516	13.220	13.750	210	1.070	0.97
137	3.40	11	11.482	14.550	14.210	14.790	161	1.365	0.98
137	3.40	11	12.565	15.927	15.530	16.180	87	1.811	0.99
137	3.40	11	13.601	17.240	16.790	17.510	214	1.714	0.98
138	3.40	12	3.606	21.115	19.270	22.300	-136	1.359	1.01
138	3.40	12	4.544	21.981	19.720	23.430	8	1.443	1.00
138	3.40	12	5.630	22.980	20.250	24.730	322	1.451	0.98
138	3.40	12	7.836	25.002	21.320	27.360	512	1.278	0.97
138	3.40	12	8.899	25.972	21.850	28.610	524	1.275	0.97
138	3.40	12	10.070	27.042	22.430	29.990	180	1.553	0.99
138	3.40	12	10.931	27.828	22.860	31.000	554	1.249	0.97
138	3.40	12	11.989	28.795	23.410	32.240	569	1.153	0.97
138	3.40	12	12.997	29.717	23.930	33.420	-3	1.343	1.00
139	3.40	13	3.513	28.577	26.220	34.110	537	0.550	0.97
139	3.40	13	4.670	29.227	26.800	35.240	745	0.418	0.96
139	3.40	13	5.677	29.795	27.310	36.240	952	0.334	0.95
139	3.40	13	6.757	30.407	27.850	37.330	968	0.361	0.95
139	3.40	13	7.919	31.068	28.430	38.510	787	0.356	0.96
139	3.40	13	10.002	32.260	29.480	40.660	810	0.355	0.96
139	3.40	13	12.244	33.559	30.610	43.000	840	0.308	0.96
139	3.40	13	15.493	35.484	32.300	46.420	874	0.301	0.96
139	3.40	13	16.573	36.138	32.870	47.560	881	0.335	0.96
140	3.55	11	7.773	9.010	8.700	9.350	275	0.310	0.96
140	3.55	11	8.859	10.268	9.920	10.650	238	0.460	0.97
140	3.55	11	9.942	11.518	11.120	11.940	16	0.521	1.00
140	3.55	11	10.671	12.359	11.940	12.810	111	0.634	0.99
140	3.55	11	11.482	13.293	12.840	13.770	214	0.687	0.98
140	3.55	11	12.565	14.538	14.050	15.060	-90	0.712	1.01
140	3.55	11	13.601	15.729	15.210	16.280	134	0.864	0.99
141	3.55	12	3.606	20.171	19.330	21.160	146	2.096	0.99
141	3.55	12	4.544	21.184	20.260	22.280	151	2.046	0.99
141	3.55	12	5.630	22.347	21.340	23.570	162	2.061	0.99
141	3.55	12	7.836	24.689	23.500	26.170	174	2.017	0.99
141	3.55	12	8.899	25.808	24.530	27.420	9	1.886	1.00
141	3.55	12	10.070	27.037	25.670	28.780	4	1.943	1.00
141	3.55	12	10.931	27.939	26.510	29.780	9	1.943	1.00
141	3.55	12	11.989	29.047	27.540	31.010	9	2.022	1.00
141	3.55	12	12.997	30.101	28.520	32.170	-3	1.862	1.00

# of sub-batch/cycle	enrichment	cycle #	cycle burnup	sub-batch burnup	Min. sub-batch burnup	Max. sub-batch burnup	Decrement bias (pcm)	Sensitivity (%)	Exposure Multiplier from r.m.s. Minimization
142	3.67	12	12.997	16.375	14.380	17.210	95	0.372	0.99
143	3.67	13	3.513	21.468	19.610	22.720	-286	1.045	1.02
143	3.67	13	4.670	22.738	20.950	24.130	158	1.178	0.99
143	3.67	13	5.677	23.840	21.590	25.360	322	1.208	0.98
143	3.67	13	6.757	25.019	22.210	26.670	334	1.195	0.98
143	3.67	13	7.919	26.282	22.880	28.090	347	1.237	0.98
143	3.67	13	8.999	27.453	23.500	29.400	530	1.208	0.97
143	3.67	13	10.002	28.537	24.070	30.620	369	1.287	0.98
143	3.67	13	11.160	29.785	24.730	32.020	564	1.267	0.97
143	3.67	13	12.244	30.951	25.350	33.330	588	1.179	0.97
143	3.67	13	13.247	32.026	25.920	34.540	596	1.268	0.97
143	3.67	13	14.408	33.268	26.600	35.940	614	1.220	0.97
143	3.67	13	15.493	34.424	27.240	37.240	635	1.089	0.97
143	3.67	13	16.573	35.574	27.880	38.520	653	1.053	0.97
144	3.67	14	3.006	32.411	29.670	35.150	408	0.421	0.98
144	3.67	14	4.086	32.820	30.230	35.410	416	0.455	0.98
144	3.67	14	5.169	33.230	30.790	35.670	846	0.506	0.96
144	3.67	14	6.248	33.638	31.350	35.930	433	0.499	0.98
144	3.67	14	7.365	34.061	31.930	36.190	870	0.497	0.96
144	3.67	14	8.324	34.424	32.420	36.430	880	0.430	0.96
144	3.67	14	9.406	34.834	32.980	36.690	1333	0.377	0.94
144	3.67	14	10.485	35.244	33.540	36.950	1121	0.374	0.95
144	3.67	14	11.564	35.656	34.090	37.220	676	0.408	0.97
144	3.67	14	12.646	36.072	34.660	37.490	680	0.399	0.97
144	3.67	14	13.729	36.493	35.220	37.760	681	0.383	0.97
144	3.67	14	14.807	36.917	35.790	38.040	691	0.350	0.97
144	3.67	14	16.431	37.570	36.660	38.480	-480	0.359	1.02
145	3.92	14	3.006	18.553	15.880	19.920	-921	0.377	1.07
145	3.92	14	4.086	19.671	17.130	20.980	-546	0.759	1.04
145	3.92	14	5.169	20.780	18.370	22.020	-274	1.092	1.02
145	3.92	14	6.248	21.877	19.600	23.060	19	1.422	1.00
145	3.92	14	7.365	23.003	20.860	24.120	178	1.573	0.99
145	3.92	14	8.324	23.962	21.930	25.020	513	1.606	0.97
145	3.92	14	9.406	25.036	23.130	26.030	362	1.912	0.98
145	3.92	14	10.485	26.101	24.320	27.030	371	1.829	0.98
145	3.92	14	11.564	27.159	25.500	28.030	375	1.721	0.98
145	3.92	14	12.646	28.218	26.670	29.040	383	1.781	0.98
145	3.92	14	13.729	29.275	27.840	30.040	192	1.775	0.99
145	3.92	14	14.807	30.328	29.000	31.040	206	1.784	0.99
145	3.92	14	15.619	31.121	29.870	31.790	205	1.720	0.99
145	3.92	14	16.431	31.917	30.740	32.550	383	1.582	0.98
145	3.92	14	17.312	32.782	31.690	33.380	11	1.616	1.00
146	3.92	15	12.905	38.732	38.350	38.980	460	0.325	0.98
147	3.92	14	3.006	24.452	22.140	25.580	-481	1.754	1.03
147	3.92	14	4.086	25.673	23.350	26.860	-167	2.205	1.01
147	3.92	14	5.169	26.892	24.540	28.180	172	1.878	0.99

# of sub-batch/cycle	enrichment	cycle #	cycle burnup	sub-batch burnup	Min. sub-batch burnup	Max. sub-batch burnup	Decrement bias (pcm)	Sensitivity (%)	Exposure Multiplier from r.m.s. Minimization
147	3.92	14	6.248	28.102	25.720	29.490	356	1.712	0.98
147	3.92	14	7.365	29.352	26.930	30.850	554	1.498	0.97
147	3.92	14	8.324	30.423	27.850	32.020	762	1.482	0.96
147	3.92	14	9.406	31.628	28.530	33.330	785	1.410	0.96
147	3.92	14	10.485	32.825	29.210	34.640	803	1.404	0.96
147	3.92	14	11.564	34.020	29.890	35.950	616	1.685	0.97
147	3.92	14	12.646	35.215	30.580	37.260	631	1.593	0.97
147	3.92	14	13.729	36.407	31.270	38.560	428	1.786	0.98
147	3.92	14	14.807	37.591	31.970	39.850	657	1.703	0.97
147	3.92	14	15.619	38.481	32.490	40.810	221	2.000	0.99
147	3.92	14	16.431	39.368	33.030	41.770	-219	1.825	1.01
147	3.92	14	17.312	40.329	33.610	42.800	452	1.850	0.98
148	3.92	13	16.573	21.573	21.240	21.900	-417	0.327	1.04
149	3.92	14	3.006	24.570	23.720	25.410	462	0.482	0.97
149	3.92	14	4.086	25.475	24.230	26.700	484	0.494	0.97
149	3.92	14	5.169	26.382	24.740	28.010	505	0.496	0.97
149	3.92	14	6.248	27.287	25.250	29.310	352	0.588	0.98
149	3.92	14	7.365	28.224	25.780	30.660	366	0.613	0.98
149	3.92	14	8.324	29.028	26.230	31.820	377	0.733	0.98
149	3.92	14	9.406	29.937	26.730	33.130	388	0.753	0.98
149	3.92	14	10.485	30.842	27.240	34.440	21	0.886	1.00
149	3.92	14	11.564	31.748	27.750	35.740	-175	0.692	1.01
149	3.92	14	12.646	32.657	28.260	37.050	-373	0.635	1.02
149	3.92	14	13.729	33.566	28.780	38.350	-781	0.446	1.04
149	3.92	14	14.807	34.471	29.310	39.640	-787	0.427	1.04
149	3.92	14	16.431	35.835	30.110	41.560	-421	0.321	1.02
149	3.92	14	17.312	36.575	30.560	42.600	-1039	0.335	1.05
150	4.50	15	4.553	21.341	19.740	22.140	1067	0.376	0.93
150	4.50	15	5.636	22.241	20.880	22.920	950	0.412	0.94
150	4.50	15	6.720	23.131	22.020	23.690	1140	0.377	0.93
150	4.50	15	7.795	24.007	23.140	24.440	1338	0.356	0.92
150	4.50	15	8.847	24.858	24.230	25.170	1196	0.400	0.93
150	4.50	15	10.008	25.791	25.440	25.970	1230	0.411	0.93
150	4.50	15	12.905	28.110	27.900	28.580	921	0.563	0.95
150	4.50	15	14.170	29.124	28.760	29.900	1164	0.481	0.94
150	4.50	15	15.254	29.997	29.500	31.030	797	0.634	0.96
150	4.50	15	16.337	30.874	30.250	32.170	380	0.825	0.98
150	4.50	15	17.412	31.752	31.000	33.310	643	0.736	0.97
151	4.50	16	4.433	35.356	34.410	37.330	659	0.366	0.97
151	4.50	16	5.517	35.790	34.850	37.750	1119	0.364	0.95
151	4.50	16	8.286	36.942	36.010	38.890	1149	0.451	0.95
151	4.50	16	8.739	37.137	36.200	39.090	1390	0.322	0.94
151	4.50	16	10.907	38.095	37.150	40.060	1663	0.307	0.93
151	4.50	16	11.991	38.589	37.650	40.570	949	0.440	0.96
151	4.50	16	14.147	39.602	38.650	41.600	1466	0.305	0.94
151	4.50	16	15.231	40.126	39.170	42.140	986	0.366	0.96

# of sub-batch/cycle	enrichment	cycle #	cycle burnup	sub-batch burnup	Min. sub-batch burnup	Max. sub-batch burnup	Decrement bias (pcm)	Sensitivity (%)	Exposure Multiplier from r.m.s. Minimization
151	4.50	16	16.316	40.659	39.690	42.680	990	0.301	0.96
151	4.50	16	17.400	41.201	40.230	43.240	1000	0.399	0.96
151	4.50	16	8.746	37.157	36.200	39.090	1158	0.375	0.95
152	4.50	14	12.646	14.323	14.060	14.580	60	0.327	0.99
152	4.50	14	13.729	15.526	15.220	15.820	-17	0.426	1.00
152	4.50	14	14.807	16.726	16.380	17.060	157	0.360	0.98
152	4.50	14	16.431	18.538	18.140	18.930	175	0.438	0.98
152	4.50	14	17.312	19.527	19.100	19.950	-348	0.521	1.03
153	4.50	15	3.508	25.099	24.640	25.550	23	1.549	1.00
153	4.50	15	4.553	26.344	25.890	26.790	14	1.436	1.00
153	4.50	15	5.636	27.619	27.170	28.060	364	1.778	0.98
153	4.50	15	6.720	28.877	28.450	29.300	197	1.853	0.99
153	4.50	15	7.795	30.111	29.700	30.520	387	1.958	0.98
153	4.50	15	8.847	31.307	30.920	31.690	-171	1.476	1.01
153	4.50	15	10.008	32.613	32.250	32.970	401	1.942	0.98
153	4.50	15	11.048	33.776	33.450	34.100	17	1.935	1.00
153	4.50	15	12.132	34.979	34.680	35.270	218	2.018	0.99
153	4.50	15	12.905	35.834	35.560	36.100	218	2.054	0.99
153	4.50	15	14.170	37.229	37.000	37.450	-204	1.474	1.01
153	4.50	15	15.254	38.420	38.230	38.600	228	1.914	0.99
153	4.50	15	16.337	39.608	39.450	39.760	-675	0.986	1.03
153	4.50	15	17.412	40.787	40.660	40.900	-440	1.289	1.02
154	4.50	16	8.739	45.904	45.860	46.060	500	0.322	0.98
154	4.50	16	10.907	46.573	46.540	46.720	1030	0.305	0.96
154	4.50	16	11.991	46.917	46.880	47.070	509	0.343	0.98
154	4.50	16	14.147	47.620	47.590	47.770	511	0.385	0.98
154	4.50	16	15.231	47.984	47.950	48.130	520	0.343	0.98
154	4.50	16	16.316	48.356	48.320	48.500	517	0.301	0.98
154	4.50	16	17.400	48.736	48.690	48.880	1065	0.310	0.96
155	4.14	14	17.312	22.177	21.320	23.020	-383	0.338	1.04
156	4.14	15	3.508	27.774	26.900	28.630	-344	0.370	1.02
156	4.14	15	4.553	28.963	28.100	29.810	179	0.483	0.99
156	4.14	15	5.636	30.180	29.340	31.000	-179	0.374	1.01
156	4.14	15	6.720	31.383	30.570	32.180	4	0.418	1.00
156	4.14	15	7.795	32.568	31.790	33.330	-185	0.368	1.01
156	4.14	15	8.847	33.718	32.980	34.440	-385	0.338	1.02
156	4.14	15	10.008	34.978	34.290	35.640	-193	0.410	1.01
156	4.14	15	12.132	37.264	36.680	37.830	-615	0.332	1.03
156	4.14	15	12.905	38.091	37.550	38.620	-1043	0.324	1.05
156	4.14	15	16.337	41.732	41.350	42.100	-215	0.474	1.01
157	4.14	14	17.312	22.129	21.510	22.560	96	0.409	0.99
158	4.14	15	3.508	27.719	27.100	28.180	843	2.667	0.95
158	4.14	15	4.553	28.918	28.320	29.340	705	3.123	0.96
158	4.14	15	5.636	30.153	29.600	30.540	722	3.363	0.96
158	4.14	15	6.720	31.385	30.870	31.720	555	3.776	0.97
158	4.14	15	7.795	32.605	32.140	32.880	768	3.452	0.96

# of sub-batch/cycle	enrichment	cycle #	cycle burnup	sub-batch burnup	Min. sub-batch burnup	Max. sub-batch burnup	Decrement bias (pcm)	Sensitivity (%)	Exposure Multiplier from r.m.s. Minimization
158	4.14	15	8.847	33.796	33.390	34.040	585	3.758	0.97
158	4.14	15	10.008	35.108	34.770	35.320	615	3.880	0.97
158	4.14	15	11.048	36.281	36.000	36.470	614	3.793	0.97
158	4.14	15	12.132	37.499	37.280	37.700	645	3.951	0.97
158	4.14	15	12.905	38.366	38.170	38.600	441	4.095	0.98
158	4.14	15	14.170	39.779	39.610	40.070	443	4.042	0.98
158	4.14	15	15.254	40.983	40.740	41.330	679	4.031	0.97
158	4.14	15	16.337	42.181	41.860	42.580	243	4.317	0.99
158	4.14	15	17.412	43.365	42.970	43.810	926	3.520	0.96
159	4.40	15	16.337	17.753	16.680	20.290	169	0.409	0.98
160	4.40	16	3.374	25.622	24.310	28.710	443	1.148	0.97
160	4.40	16	4.433	26.869	25.550	29.950	310	1.210	0.98
160	4.40	16	5.517	28.124	26.800	31.200	167	1.520	0.99
160	4.40	16	6.605	29.366	28.040	32.450	335	1.471	0.98
160	4.40	16	7.662	30.560	29.230	33.660	347	1.527	0.98
160	4.40	16	8.286	31.258	29.930	34.360	181	1.635	0.99
160	4.40	16	8.739	31.764	30.430	34.870	364	1.629	0.98
160	4.40	16	9.823	32.968	31.640	36.080	2	1.838	1.00
160	4.40	16	10.907	34.165	32.840	37.290	204	1.880	0.99
160	4.40	16	11.991	35.356	34.030	38.480	-181	1.646	1.01
160	4.40	16	13.063	36.530	35.210	39.660	15	1.824	1.00
160	4.40	16	14.147	37.712	36.400	40.840	-391	1.104	1.02
160	4.40	16	15.231	38.891	37.580	42.020	-399	1.091	1.02
160	4.40	16	16.316	40.068	38.770	43.200	-835	0.775	1.04
160	4.40	16	17.400	41.242	39.950	44.370	-851	0.848	1.04
160	4.40	16	18.484	42.415	41.140	45.530	-879	0.863	1.04
160	4.40	16	8.746	31.767	30.430	34.870	360	1.619	0.98
161	4.40	17	4.337	44.180	44.100	44.260	473	0.457	0.98
161	4.40	17	5.421	44.551	44.440	44.700	476	0.514	0.98
161	4.40	17	6.504	44.927	44.780	45.140	482	0.549	0.98
161	4.40	17	7.711	45.350	45.170	45.640	736	0.500	0.97
161	4.40	17	8.748	45.718	45.500	46.080	994	0.432	0.96
161	4.40	17	9.909	46.137	45.880	46.580	493	0.553	0.98
161	4.40	17	10.950	46.517	46.220	47.040	494	0.558	0.98
161	4.40	17	12.033	46.918	46.580	47.520	1015	0.415	0.96
161	4.40	17	13.082	47.313	46.940	48.000	1024	0.383	0.96
161	4.40	17	14.196	47.739	47.320	48.510	1293	0.344	0.95
161	4.40	17	15.276	48.158	47.700	49.010	1302	0.348	0.95
161	4.40	17	17.419	49.009	48.470	50.030	1589	0.329	0.94
162	4.75	15	16.337	19.359	18.630	20.080	224	0.344	0.97
163	4.75	16	3.374	27.676	26.870	28.480	297	1.304	0.98
163	4.75	16	4.433	28.957	28.140	29.770	152	1.267	0.99
163	4.75	16	5.517	30.251	29.430	31.060	-1	1.465	1.00
163	4.75	16	6.605	31.536	30.720	32.350	-2	1.481	1.00
163	4.75	16	7.662	32.774	31.960	33.580	-3	1.411	1.00
163	4.75	16	8.286	33.500	32.690	34.310	-184	1.323	1.01

# of sub-batch/cycle	enrichment	cycle #	cycle burnup	sub-batch burnup	Min. sub-batch burnup	Max. sub-batch burnup	Decrement bias (pcm)	Sensitivity (%)	Exposure Multiplier from r.m.s. Minimization
163	4.75	16	8.739	34.026	33.220	34.830	1	1.389	1.00
163	4.75	16	9.823	35.280	34.480	36.080	196	1.638	0.99
163	4.75	16	10.907	36.527	35.730	37.320	7	1.473	1.00
163	4.75	16	11.991	37.768	36.990	38.550	9	1.285	1.00
163	4.75	16	13.063	38.991	38.220	39.760	15	1.395	1.00
163	4.75	16	14.147	40.223	39.470	40.980	17	1.406	1.00
163	4.75	16	15.231	41.451	40.710	42.190	238	1.407	0.99
163	4.75	16	16.316	42.675	41.950	43.400	241	1.381	0.99
163	4.75	16	17.400	43.896	43.180	44.610	251	1.457	0.99
163	4.75	16	18.484	45.113	44.410	45.810	495	1.403	0.98
163	4.75	16	8.746	34.030	33.220	34.830	-1	1.371	1.00
164	4.40	15	4.553	5.478	5.030	5.590	-147	0.540	0.96
164	4.40	15	5.636	6.836	6.320	6.980	28	0.510	1.01
164	4.40	15	6.720	8.215	7.640	8.390	116	0.340	1.04
164	4.40	15	7.795	9.603	8.990	9.820	48	0.308	1.02
164	4.40	15	14.170	18.069	17.500	18.480	-51	0.437	1.01
164	4.40	15	15.254	19.516	18.980	19.950	-204	1.298	1.03
164	4.40	15	16.337	20.958	20.450	21.420	-248	1.700	1.03
164	4.40	15	17.412	22.383	21.900	22.870	-326	2.110	1.03
165	4.40	16	3.374	28.956	27.340	30.040	-312	4.377	1.02
165	4.40	16	4.433	30.054	28.000	31.270	-322	4.677	1.02
165	4.40	16	5.517	31.170	28.670	32.500	-162	5.199	1.01
165	4.40	16	6.605	32.281	29.350	33.720	-169	5.346	1.01
165	4.40	16	7.662	33.353	30.000	34.890	-175	5.577	1.01
165	4.40	16	8.286	33.982	30.390	35.570	-177	5.765	1.01
165	4.40	16	8.739	34.438	30.680	36.060	-173	5.662	1.01
165	4.40	16	9.823	35.524	31.360	37.260	203	6.516	0.99
165	4.40	16	10.907	36.605	32.050	38.480	15	6.158	1.00
165	4.40	16	11.991	37.683	32.740	39.690	222	6.182	0.99
165	4.40	16	13.063	38.745	33.430	40.880	426	6.175	0.98
165	4.40	16	14.147	39.817	34.140	42.080	450	6.015	0.98
165	4.40	16	15.231	40.887	34.860	43.280	461	5.857	0.98
165	4.40	16	16.316	41.955	35.580	44.460	692	5.418	0.97
165	4.40	16	17.400	43.022	36.310	45.650	706	5.554	0.97
165	4.40	16	18.484	44.089	37.050	46.830	940	5.142	0.96
165	4.40	16	8.746	34.435	30.680	36.060	-177	5.790	1.01
166	4.35	16	8.286	9.623	8.660	10.910	-13	0.489	1.00
166	4.35	16	8.739	10.154	9.130	11.500	-17	0.539	1.00
166	4.35	16	9.823	11.427	10.270	12.930	-8	0.845	1.00
166	4.35	16	10.907	12.703	11.410	14.350	114	0.895	0.98
166	4.35	16	11.991	13.982	12.560	15.780	350	0.739	0.95
166	4.35	16	13.063	15.250	13.690	17.180	432	0.824	0.95
166	4.35	16	14.147	16.532	14.850	18.600	365	1.012	0.96
166	4.35	16	15.231	17.816	16.010	20.010	306	1.262	0.97
166	4.35	16	16.316	19.101	17.170	21.420	445	1.128	0.96
166	4.35	16	17.400	20.386	18.330	22.830	358	1.686	0.97

# of sub-batch/cycle	enrichment	cycle #	cycle burnup	sub-batch burnup	Min. sub-batch burnup	Max. sub-batch burnup	Decrement bias (pcm)	Sensitivity (%)	Exposure Multiplier from r.m.s. Minimization
166	4.35	16	18.484	21.671	19.500	24.230	0	2.345	1.00
166	4.35	16	8.746	10.161	9.130	11.500	-55	0.524	1.01
167	4.35	17	3.257	26.362	24.670	27.830	-645	1.805	1.04
167	4.35	17	4.337	27.407	25.910	28.500	-168	2.602	1.01
167	4.35	17	5.421	28.446	27.140	29.180	-174	2.671	1.01
167	4.35	17	6.504	29.478	28.370	30.190	173	2.865	0.99
167	4.35	17	7.711	30.621	29.720	31.510	-2	2.848	1.00
167	4.35	17	8.748	31.599	30.880	32.630	188	3.103	0.99
167	4.35	17	9.909	32.691	31.990	33.870	2	3.018	1.00
167	4.35	17	10.950	33.667	32.660	34.980	396	2.885	0.98
167	4.35	17	12.033	34.683	33.360	36.140	204	3.111	0.99
167	4.35	17	13.082	35.666	34.040	37.250	6	3.065	1.00
167	4.35	17	14.196	36.710	34.770	38.420	214	3.133	0.99
167	4.35	17	15.276	37.722	35.490	39.560	218	3.120	0.99
167	4.35	17	17.419	39.734	36.920	41.820	453	2.947	0.98
167	4.35	17	18.479	40.731	37.640	42.940	230	3.195	0.99
168	4.35	18	3.255	42.518	39.370	44.590	212	1.218	0.99
168	4.35	18	4.414	42.921	39.820	44.920	453	1.268	0.98
168	4.35	18	5.494	43.302	40.240	45.220	456	1.378	0.98
168	4.35	18	6.573	43.688	40.670	45.530	462	1.380	0.98
168	4.35	18	7.653	44.082	41.110	45.840	473	1.362	0.98
168	4.35	18	8.724	44.480	41.550	46.160	1222	0.956	0.95
168	4.35	18	9.846	44.906	42.010	46.500	1480	0.791	0.94
168	4.35	18	10.891	45.310	42.460	46.820	730	1.412	0.97
168	4.35	18	13.046	46.167	43.400	47.710	1267	1.084	0.95
168	4.35	18	14.133	46.613	43.890	48.200	758	1.430	0.97
168	4.35	18	15.181	47.050	44.370	48.680	1020	1.252	0.96
168	4.35	18	16.299	47.525	44.890	49.210	770	1.524	0.97
168	4.35	18	17.379	47.992	45.400	49.720	780	1.457	0.97
168	4.35	18	18.462	48.469	45.920	50.250	252	1.505	0.99
169	4.35	16	10.907	12.560	11.930	13.200	-171	0.307	1.03
169	4.35	16	11.991	13.864	13.220	14.520	125	0.497	0.98
169	4.35	16	14.147	16.473	15.820	17.140	262	0.631	0.97
169	4.35	16	15.231	17.788	17.130	18.460	498	0.562	0.95
169	4.35	16	16.316	19.106	18.450	19.780	227	0.809	0.98
169	4.35	16	17.400	20.424	19.760	21.090	248	1.039	0.98
169	4.35	16	18.484	21.743	21.080	22.410	286	1.178	0.98
170	4.35	17	3.257	27.035	26.340	27.720	-317	1.091	1.02
170	4.35	17	4.337	28.257	27.560	28.940	-328	1.179	1.02
170	4.35	17	5.421	29.469	28.760	30.140	-340	1.238	1.02
170	4.35	17	6.504	30.669	29.960	31.340	-351	1.200	1.02
170	4.35	17	7.711	31.997	31.290	32.650	2	1.271	1.00
170	4.35	17	8.748	33.130	32.420	33.780	7	1.307	1.00
170	4.35	17	9.909	34.392	33.680	35.030	204	1.528	0.99
170	4.35	17	10.950	35.519	34.800	36.140	11	1.444	1.00
170	4.35	17	12.033	36.688	35.970	37.300	8	1.331	1.00

# of sub-batch/cycle	enrichment	cycle #	cycle burnup	sub-batch burnup	Min. sub-batch burnup	Max. sub-batch burnup	Decrement bias (pcm)	Sensitivity (%)	Exposure Multiplier from r.m.s. Minimization
170	4.35	17	13.082	37.817	37.090	38.420	223	1.478	0.99
170	4.35	17	14.196	39.013	38.290	39.600	-210	1.175	1.01
170	4.35	17	15.276	40.170	39.440	40.750	7	1.325	1.00
170	4.35	17	17.419	42.462	41.730	43.020	4	1.313	1.00
170	4.35	17	18.479	43.594	42.860	44.140	-239	1.162	1.01
171	3.92	16	9.823	12.242	10.040	12.710	-222	0.428	1.05
171	3.92	16	10.907	13.627	11.300	14.100	20	0.973	1.00
171	3.92	16	11.991	15.008	12.580	15.490	21	1.242	1.00
171	3.92	16	13.063	16.370	13.860	16.850	183	1.425	0.98
171	3.92	16	14.147	17.743	15.150	18.220	-78	1.592	1.01
171	3.92	16	15.231	19.110	16.460	19.580	21	1.908	1.00
171	3.92	16	16.316	20.471	17.760	20.970	-232	1.506	1.02
171	3.92	16	17.400	21.827	19.060	22.390	-250	1.807	1.02
171	3.92	16	18.484	23.177	20.370	23.810	-582	1.697	1.04
172	3.92	17	3.257	28.207	25.350	28.880	-505	3.912	1.03
172	3.92	17	4.337	29.360	26.470	30.030	-171	4.961	1.01
172	3.92	17	5.421	30.507	27.580	31.230	-176	5.171	1.01
172	3.92	17	6.504	31.647	28.670	32.410	5	5.811	1.00
172	3.92	17	7.711	32.910	29.880	33.730	4	5.918	1.00
172	3.92	17	8.748	33.991	30.910	34.850	202	5.961	0.99
172	3.92	17	9.909	35.198	32.060	36.090	6	5.927	1.00
172	3.92	17	10.950	36.276	33.090	37.210	11	5.954	1.00
172	3.92	17	12.033	37.397	34.160	38.360	11	5.921	1.00
172	3.92	17	13.082	38.479	35.200	39.470	11	5.844	1.00
172	3.92	17	14.196	39.628	36.300	40.650	11	5.920	1.00
172	3.92	17	15.276	40.740	37.360	41.790	12	5.888	1.00
172	3.92	17	17.419	42.946	39.480	44.050	10	5.922	1.00
172	3.92	17	18.479	44.035	40.530	45.160	-5	6.073	1.00
173	4.45	17	9.909	12.205	9.840	13.140	239	0.360	0.95
173	4.45	17	10.950	13.516	10.870	14.520	420	0.369	0.93
173	4.45	17	12.033	14.880	11.950	15.940	362	0.714	0.95
173	4.45	17	13.082	16.199	12.990	17.320	423	0.937	0.95
173	4.45	17	14.196	17.599	14.100	18.780	299	1.439	0.97
173	4.45	17	15.276	18.953	15.180	20.180	330	1.779	0.97
173	4.45	17	17.419	21.633	17.340	23.000	263	2.536	0.98
173	4.45	17	18.479	22.953	18.410	24.420	-3	3.083	1.00
174	4.45	18	3.255	27.719	23.110	29.200	-468	3.286	1.03
174	4.45	18	4.414	29.075	24.450	30.550	-487	3.564	1.03
174	4.45	18	5.494	30.324	25.670	31.820	-334	4.125	1.02
174	4.45	18	6.573	31.560	26.880	33.070	-346	4.203	1.02
174	4.45	18	7.653	32.786	28.090	34.310	-172	4.674	1.01
174	4.45	18	8.724	33.992	29.280	35.540	15	5.110	1.00
174	4.45	18	9.846	35.245	30.520	36.860	-173	4.383	1.01
174	4.45	18	10.891	36.404	31.680	38.070	-188	4.977	1.01
174	4.45	18	13.046	38.775	34.060	40.540	234	5.539	0.99
174	4.45	18	14.133	39.962	35.270	41.770	13	5.236	1.00



# of sub-batch/cycle	enrichment	cycle #	cycle burnup	sub-batch burnup	Min. sub-batch burnup	Max. sub-batch burnup	Decrement bias (pcm)	Sensitivity (%)	Exposure Multiplier from r.m.s. Minimization
174	4.45	18	15.181	41.103	36.430	42.950	14	5.177	1.00
174	4.45	18	16.299	42.316	37.670	44.200	8	5.310	1.00
174	4.45	18	17.379	43.483	38.870	45.400	9	5.244	1.00
174	4.45	18	18.462	44.652	40.070	46.600	3	5.151	1.00
175	4.74	17	7.711	8.987	8.420	9.490	-1	0.565	1.00
175	4.74	17	8.748	10.227	9.560	10.800	114	0.733	0.97
175	4.74	17	9.909	11.618	10.850	12.280	146	0.972	0.97
175	4.74	17	10.950	12.868	12.000	13.600	121	1.337	0.98
175	4.74	17	12.033	14.171	13.200	14.980	145	1.640	0.98
175	4.74	17	13.082	15.433	14.360	16.310	250	1.719	0.97
175	4.74	17	14.196	16.776	15.600	17.720	98	2.458	0.99
175	4.74	17	15.276	18.076	16.790	19.090	108	2.801	0.99
175	4.74	17	17.419	20.658	19.170	21.800	-113	3.284	1.01
175	4.74	17	18.479	21.933	20.350	23.140	-252	3.333	1.02
176	4.74	18	3.255	26.862	25.300	28.150	-167	3.248	1.01
176	4.74	18	4.414	28.260	26.700	29.560	-168	3.521	1.01
176	4.74	18	5.494	29.545	27.970	30.850	-174	3.712	1.01
176	4.74	18	6.573	30.817	29.220	32.120	-177	3.842	1.01
176	4.74	18	7.653	32.079	30.460	33.380	-2	4.076	1.00
176	4.74	18	8.724	33.324	31.680	34.620	195	4.229	0.99
176	4.74	18	9.846	34.621	32.950	35.900	203	4.159	0.99
176	4.74	18	10.891	35.823	34.130	37.090	-184	4.018	1.01
176	4.74	18	13.046	38.289	36.540	39.530	234	4.207	0.99
176	4.74	18	14.133	39.527	37.760	40.750	16	4.228	1.00
176	4.74	18	15.181	40.718	38.930	41.930	16	3.997	1.00
176	4.74	18	16.299	41.985	40.170	43.170	13	4.063	1.00
176	4.74	18	17.379	43.205	41.370	44.380	19	3.982	1.00
176	4.74	18	18.462	44.426	42.580	45.580	-220	3.623	1.01
177	4.74	19	3.410	46.342	45.070	47.410	-751	0.426	1.03
177	4.74	19	4.493	46.685	45.530	47.650	-255	0.670	1.01
177	4.74	19	5.573	47.029	46.000	47.900	-4	0.832	1.00
177	4.74	19	6.617	47.367	46.450	48.130	250	1.049	0.99
177	4.74	19	7.740	47.735	46.950	48.390	1555	0.593	0.94
177	4.74	19	8.858	48.108	47.460	48.650	2101	0.383	0.92
177	4.74	19	9.907	48.465	47.930	48.910	1040	0.762	0.96
177	4.74	19	10.983	48.837	48.430	49.170	794	0.900	0.97
177	4.74	19	12.066	49.219	48.940	49.450	260	1.203	0.99
177	4.74	19	13.150	49.608	49.460	49.730	266	1.186	0.99
177	4.74	19	14.229	50.003	49.910	50.130	1071	0.772	0.96
177	4.74	19	15.468	50.466	50.250	50.740	1653	0.564	0.94
177	4.74	19	16.242	50.761	50.470	51.120	271	1.121	0.99
177	4.74	19	17.321	51.179	50.780	51.670	822	0.955	0.97
178	4.45	17	12.033	15.908	15.800	15.980	379	0.321	0.95
178	4.45	17	13.082	17.288	17.170	17.380	362	0.385	0.96
178	4.45	17	14.196	18.750	18.630	18.860	513	0.474	0.95
178	4.45	17	15.276	20.161	20.030	20.280	351	0.673	0.97

# of sub-batch/cycle	enrichment	cycle #	cycle burnup	sub-batch burnup	Min. sub-batch burnup	Max. sub-batch burnup	Decrement bias (pcm)	Sensitivity (%)	Exposure Multiplier from r.m.s. Minimization
178	4.45	17	17.419	22.948	22.810	23.100	145	1.070	0.99
178	4.45	17	18.479	24.319	24.180	24.480	143	1.237	0.99
179	4.45	18	3.255	28.151	27.150	29.120	-328	1.766	1.02
179	4.45	18	4.414	29.178	27.800	30.480	-1	2.253	1.00
179	4.45	18	5.494	30.129	28.410	31.730	-175	2.272	1.01
179	4.45	18	6.573	31.076	29.030	33.020	-1	2.454	1.00
179	4.45	18	7.653	32.020	29.650	34.290	4	2.571	1.00
179	4.45	18	8.724	32.956	30.270	35.540	203	2.489	0.99
179	4.45	18	9.846	33.935	30.940	36.840	212	2.438	0.99
179	4.45	18	10.891	34.846	31.570	38.040	201	2.759	0.99
179	4.45	18	13.046	36.729	32.890	40.490	641	2.310	0.97
179	4.45	18	14.133	37.682	33.570	41.710	221	2.758	0.99
179	4.45	18	15.181	38.602	34.240	42.880	226	2.616	0.99
179	4.45	18	16.299	39.586	34.960	44.120	227	2.680	0.99
179	4.45	18	17.379	40.539	35.670	45.310	457	2.476	0.98
179	4.45	18	18.462	41.498	36.390	46.510	225	2.623	0.99
180	4.45	19	3.410	39.062	38.430	40.230	-6	0.496	1.00
180	4.45	19	4.493	39.558	38.880	40.820	-5	0.548	1.00
180	4.45	19	5.573	40.055	39.340	41.410	-5	0.611	1.00
180	4.45	19	6.617	40.541	39.780	41.970	-6	0.719	1.00
180	4.45	19	7.740	41.069	40.270	42.590	469	0.726	0.98
180	4.45	19	8.858	41.603	40.760	43.210	475	0.672	0.98
180	4.45	19	9.907	42.111	41.230	43.790	968	0.563	0.96
180	4.45	19	10.983	42.640	41.720	44.410	248	0.796	0.99
180	4.45	19	12.066	43.182	42.220	45.030	744	0.700	0.97
180	4.45	19	13.150	43.733	42.730	45.670	756	0.641	0.97
180	4.45	19	14.229	44.290	43.240	46.310	1009	0.579	0.96
180	4.45	19	15.468	44.941	43.840	47.060	-499	0.836	1.02
180	4.45	19	16.242	45.354	44.220	47.540	778	0.660	0.97
180	4.45	19	17.321	45.938	44.760	48.210	259	0.917	0.99
181	4.64	18	9.846	10.812	10.190	11.440	92	0.391	0.98
181	4.64	18	10.891	11.994	11.310	12.690	283	0.363	0.95
181	4.64	18	13.046	14.452	13.640	15.270	165	0.868	0.98
181	4.64	18	14.133	15.700	14.830	16.580	179	0.981	0.98
181	4.64	18	15.181	16.908	15.970	17.850	-2	1.235	1.00
181	4.64	18	16.299	18.200	17.210	19.200	0	1.409	1.00
181	4.64	18	17.379	19.450	18.400	20.500	5	1.530	1.00
181	4.64	18	18.462	20.707	19.600	21.810	121	1.621	0.99
182	4.64	19	3.410	26.039	24.880	27.260	-618	1.061	1.04
182	4.64	19	4.493	27.345	26.180	28.600	-162	1.482	1.01
182	4.64	19	5.573	28.634	27.460	29.930	-333	1.498	1.02
182	4.64	19	6.617	29.871	28.700	31.200	-172	1.574	1.01
182	4.64	19	7.740	31.190	30.020	32.550	189	1.769	0.99
182	4.64	19	8.858	32.496	31.330	33.890	13	1.598	1.00
182	4.64	19	9.907	33.713	32.550	35.140	206	1.854	0.99
182	4.64	19	10.983	34.956	33.810	36.400	8	1.794	1.00

# of sub-batch/cycle	enrichment	cycle #	cycle burnup	sub-batch burnup	Min. sub-batch burnup	Max. sub-batch burnup	Decrement bias (pcm)	Sensitivity (%)	Exposure Multiplier from r.m.s. Minimization
182	4.64	19	12.066	36.202	35.060	37.670	13	1.876	1.00
182	4.64	19	13.150	37.443	36.320	38.930	224	1.929	0.99
182	4.64	19	14.229	38.675	37.570	40.180	444	1.679	0.98
182	4.64	19	15.468	40.083	38.990	41.600	685	1.814	0.97
182	4.64	19	16.242	40.960	39.890	42.480	461	1.869	0.98
182	4.64	19	17.321	42.181	41.130	43.710	242	1.927	0.99
183	4.64	20	3.370	44.104	43.600	45.070	464	0.736	0.98
183	4.64	20	4.485	44.556	44.070	45.500	471	0.800	0.98
183	4.64	20	5.530	44.982	44.500	45.900	229	0.815	0.99
183	4.64	20	6.611	45.424	44.960	46.320	-11	0.793	1.00
183	4.64	20	7.738	45.890	45.440	46.760	743	0.653	0.97
183	4.64	20	8.818	46.342	45.900	47.190	-255	0.654	1.01
183	4.64	20	9.864	46.783	46.360	47.610	-2	0.780	1.00
183	4.64	20	10.987	47.263	46.850	48.060	5	0.836	1.00
183	4.64	20	12.068	47.732	47.330	48.500	-245	0.838	1.01
183	4.64	20	13.152	48.210	47.820	48.960	2	0.882	1.00
183	4.64	20	14.237	48.695	48.320	49.420	9	0.947	1.00
183	4.64	20	15.317	49.186	48.820	49.880	265	1.034	0.99
183	4.64	20	16.405	49.689	49.340	50.360	266	1.042	0.99
183	4.64	20	17.474	50.193	49.850	50.840	267	1.027	0.99
184	4.64	18	10.891	12.504	12.390	12.600	153	0.325	0.97
184	4.64	18	13.046	15.106	14.950	15.250	448	0.353	0.94
184	4.64	18	14.133	16.428	16.250	16.590	347	0.625	0.96
184	4.64	18	15.181	17.707	17.510	17.890	293	0.842	0.97
184	4.64	18	16.299	19.075	18.860	19.270	114	1.266	0.99
184	4.64	18	17.379	20.397	20.170	20.600	243	1.249	0.98
184	4.64	18	18.462	21.724	21.480	21.940	125	1.472	0.99
185	4.64	19	3.410	27.121	26.720	27.370	-317	2.527	1.02
185	4.64	19	4.493	28.392	27.940	28.650	-163	2.842	1.01
185	4.64	19	5.573	29.639	29.140	29.900	-167	2.898	1.01
185	4.64	19	6.617	30.830	30.290	31.090	-168	3.050	1.01
185	4.64	19	7.740	32.097	31.510	32.370	24	3.305	1.00
185	4.64	19	8.858	33.351	32.730	33.620	34	3.424	1.00
185	4.64	19	9.907	34.520	33.860	34.790	31	3.514	1.00
185	4.64	19	10.983	35.713	35.020	35.990	26	3.586	1.00
185	4.64	19	12.066	36.912	36.190	37.190	-171	3.262	1.01
185	4.64	19	13.150	38.108	37.360	38.390	-169	3.204	1.01
185	4.64	19	14.229	39.297	38.520	39.580	-180	3.174	1.01
185	4.64	19	15.468	40.659	39.860	40.950	52	3.567	1.00
185	4.64	19	16.242	41.510	40.700	41.800	-177	3.229	1.01
185	4.64	19	17.321	42.696	41.870	42.990	-191	3.220	1.01
186	4.64	20	3.370	45.080	43.920	45.690	-12	0.805	1.00
186	4.64	20	4.485	45.535	44.270	46.260	240	1.011	0.99
186	4.64	20	5.530	45.968	44.600	46.800	741	0.891	0.97
186	4.64	20	6.611	46.422	44.950	47.370	497	0.946	0.98
186	4.64	20	7.738	46.900	45.320	47.980	1276	0.652	0.95

# of sub-batch/cycle	enrichment	cycle #	cycle burnup	sub-batch burnup	Min. sub-batch burnup	Max. sub-batch burnup	Decrement bias (pcm)	Sensitivity (%)	Exposure Multiplier from r.m.s. Minimization
186	4.64	20	8.818	47.365	45.670	48.560	1021	0.832	0.96
186	4.64	20	9.864	47.821	46.020	49.140	772	0.925	0.97
186	4.64	20	10.987	48.317	46.410	49.760	-249	0.969	1.01
186	4.64	20	12.068	48.801	46.780	50.370	525	1.114	0.98
186	4.64	20	13.152	49.295	47.160	51.000	261	1.236	0.99
186	4.64	20	14.237	49.795	47.540	51.630	1071	0.918	0.96
186	4.64	20	15.317	50.302	47.930	52.260	807	1.067	0.97
186	4.64	20	16.405	50.821	48.340	52.920	811	1.192	0.97
186	4.64	20	17.474	51.339	48.740	53.570	543	1.380	0.98
187	4.01	18	8.724	11.348	10.910	11.510	151	0.377	0.96
187	4.01	18	9.846	12.824	12.350	12.980	397	0.302	0.92
187	4.01	18	10.891	14.193	13.680	14.350	269	0.897	0.96
187	4.01	18	13.046	16.998	16.450	17.220	204	1.701	0.98
187	4.01	18	14.133	18.403	17.840	18.680	326	1.981	0.97
187	4.01	18	15.181	19.752	19.190	20.080	248	2.265	0.98
187	4.01	18	16.299	21.182	20.620	21.570	138	2.898	0.99
187	4.01	18	17.379	22.557	22.000	23.000	150	3.082	0.99
187	4.01	18	18.462	23.931	23.380	24.420	4	3.544	1.00
188	4.01	19	3.410	28.622	27.010	29.590	-176	2.827	1.01
188	4.01	19	4.493	29.712	27.600	30.830	-179	3.062	1.01
188	4.01	19	5.573	30.793	28.190	32.060	-1	3.295	1.00
188	4.01	19	6.617	31.835	28.760	33.250	0	3.452	1.00
188	4.01	19	7.740	32.948	29.380	34.510	391	3.161	0.98
188	4.01	19	8.858	34.055	30.000	35.770	599	3.115	0.97
188	4.01	19	9.907	35.089	30.600	36.940	414	3.354	0.98
188	4.01	19	10.983	36.147	31.210	38.130	416	3.406	0.98
188	4.01	19	12.066	37.212	31.840	39.330	430	3.414	0.98
188	4.01	19	13.150	38.274	32.480	40.520	657	3.122	0.97
188	4.01	19	14.229	39.331	33.120	41.700	228	3.642	0.99
188	4.01	19	15.468	40.543	33.870	43.040	689	3.180	0.97
188	4.01	19	16.242	41.299	34.350	43.880	694	3.091	0.97
188	4.01	19	17.321	42.354	35.020	45.050	470	3.448	0.98
189	4.00	19	8.858	11.653	11.530	11.720	160	0.301	0.96
189	4.00	19	9.907	13.062	12.950	13.120	259	0.468	0.95
189	4.00	19	10.983	14.503	14.400	14.560	397	0.484	0.94
189	4.00	19	12.066	15.946	15.860	16.000	406	0.693	0.95
189	4.00	19	13.150	17.382	17.310	17.420	296	1.006	0.97
189	4.00	19	14.229	18.805	18.750	18.840	229	1.114	0.98
189	4.00	19	15.468	20.427	20.370	20.460	504	1.264	0.96
189	4.00	19	16.242	21.435	21.370	21.480	143	1.632	0.99
189	4.00	19	17.321	22.834	22.750	22.910	149	1.826	0.99
190	4.00	20	3.370	27.674	27.240	27.910	8	2.149	1.00
190	4.00	20	4.485	28.847	28.280	29.150	11	2.432	1.00
190	4.00	20	5.530	29.941	29.240	30.310	188	2.607	0.99
190	4.00	20	6.611	31.069	30.230	31.510	191	2.707	0.99
190	4.00	20	7.738	32.242	31.260	32.750	394	2.405	0.98

# of sub-batch/cycle	enrichment	cycle #	cycle burnup	sub-batch burnup	Min. sub-batch burnup	Max. sub-batch burnup	Decrement bias (pcm)	Sensitivity (%)	Exposure Multiplier from r.m.s. Minimization
190	4.00	20	8.818	33.365	32.250	33.950	600	2.401	0.97
190	4.00	20	9.864	34.451	33.200	35.100	213	2.838	0.99
190	4.00	20	10.987	35.616	34.220	36.340	214	2.845	0.99
190	4.00	20	12.068	36.737	35.210	37.530	224	2.998	0.99
190	4.00	20	13.152	37.861	36.200	38.720	9	2.780	1.00
190	4.00	20	14.237	38.985	37.190	39.910	229	2.951	0.99
190	4.00	20	15.317	40.103	38.190	41.090	227	2.923	0.99
190	4.00	20	16.405	41.230	39.190	42.280	234	3.035	0.99
190	4.00	20	17.474	42.336	40.180	43.440	3	2.907	1.00
191	4.68	19	9.907	11.101	10.550	11.660	190	0.324	0.96
191	4.68	19	12.066	13.614	12.930	14.300	341	0.450	0.95
191	4.68	19	13.150	14.883	14.130	15.630	402	0.539	0.95
191	4.68	19	14.229	16.152	15.330	16.970	-84	1.047	1.01
191	4.68	19	15.468	17.611	16.720	18.500	425	0.718	0.96
191	4.68	19	16.242	18.525	17.590	19.450	439	0.851	0.96
191	4.68	19	17.321	19.801	18.800	20.790	127	1.480	0.99
192	4.68	20	3.370	25.335	24.350	26.300	149	0.988	0.99
192	4.68	20	4.485	26.735	25.760	27.700	466	1.044	0.97
192	4.68	20	5.530	28.030	27.050	28.990	490	1.052	0.97
192	4.68	20	6.611	29.353	28.380	30.310	508	1.225	0.97
192	4.68	20	7.738	30.719	29.740	31.670	537	1.248	0.97
192	4.68	20	8.818	32.019	31.050	32.970	561	1.221	0.97
192	4.68	20	9.864	33.269	32.300	34.220	578	1.360	0.97
192	4.68	20	10.987	34.604	33.640	35.550	199	1.572	0.99
192	4.68	20	12.068	35.882	34.920	36.830	214	1.664	0.99
192	4.68	20	13.152	37.158	36.200	38.100	217	1.660	0.99
192	4.68	20	14.237	38.429	37.470	39.370	441	1.578	0.98
192	4.68	20	15.317	39.691	38.740	40.630	453	1.548	0.98
192	4.68	20	16.405	40.957	40.010	41.890	464	1.653	0.98
192	4.68	20	17.474	42.196	41.250	43.130	236	1.836	0.99
193	4.68	19	9.907	11.712	11.370	12.070	220	0.312	0.96
193	4.68	19	12.066	14.321	13.890	14.770	528	0.327	0.93
193	4.68	19	13.150	15.636	15.160	16.130	698	0.341	0.92
193	4.68	19	14.229	16.949	16.430	17.480	396	0.735	0.96
193	4.68	19	15.468	18.458	17.900	19.040	893	0.349	0.92
193	4.68	19	16.242	19.402	18.820	20.010	597	0.753	0.95
193	4.68	19	17.321	20.720	20.100	21.360	516	1.016	0.96
194	4.68	20	3.370	26.129	25.230	26.860	151	1.954	0.99
194	4.68	20	4.485	27.492	26.510	28.270	159	2.264	0.99
194	4.68	20	5.530	28.761	27.720	29.580	169	2.261	0.99
194	4.68	20	6.611	30.061	28.960	30.930	174	2.339	0.99
194	4.68	20	7.738	31.407	30.240	32.320	547	2.015	0.97
194	4.68	20	8.818	32.689	31.470	33.650	380	2.253	0.98
194	4.68	20	9.864	33.922	32.650	34.930	7	2.361	1.00
194	4.68	20	10.987	35.240	33.920	36.300	204	2.581	0.99
194	4.68	20	12.068	36.503	35.130	37.610	212	2.650	0.99

# of sub-batch/cycle	enrichment	cycle #	cycle burnup	sub-batch burnup	Min. sub-batch burnup	Max. sub-batch burnup	Decrement bias (pcm)	Sensitivity (%)	Exposure Multiplier from r.m.s. Minimization
194	4.68	20	13.152	37.765	36.350	38.910	4	2.612	1.00
194	4.68	20	14.237	39.022	37.570	40.210	228	2.614	0.99
194	4.68	20	15.317	40.271	38.770	41.500	11	2.714	1.00
194	4.68	20	16.405	41.525	39.990	42.800	9	2.598	1.00
194	4.68	20	17.474	42.754	41.180	44.060	6	2.558	1.00
195	4.15	19	10.983	14.392	14.160	14.640	143	0.315	0.98
195	4.15	19	12.066	15.817	15.580	16.070	325	0.373	0.96
195	4.15	19	13.150	17.237	17.000	17.500	385	0.473	0.96
195	4.15	19	14.229	18.648	18.410	18.910	338	0.570	0.97
195	4.15	19	15.468	20.260	20.020	20.530	502	0.710	0.96
195	4.15	19	16.242	21.264	21.030	21.530	279	0.961	0.98
195	4.15	19	17.321	22.660	22.430	22.930	295	1.061	0.98
196	4.15	20	3.370	27.858	27.740	28.120	-481	1.740	1.03
196	4.15	20	4.485	29.128	28.970	29.370	-331	2.104	1.02
196	4.15	20	5.530	30.307	30.110	30.520	-343	2.137	1.02
196	4.15	20	6.611	31.517	31.290	31.690	-358	2.194	1.02
196	4.15	20	7.738	32.772	32.520	32.910	203	2.676	0.99
196	4.15	20	8.818	33.969	33.700	34.060	18	2.782	1.00
196	4.15	20	9.864	35.123	34.850	35.210	415	2.737	0.98
196	4.15	20	10.987	36.358	36.090	36.470	421	2.788	0.98
196	4.15	20	12.068	37.543	37.280	37.670	434	2.885	0.98
196	4.15	20	13.152	38.730	38.470	38.870	10	3.067	1.00
196	4.15	20	14.237	39.913	39.660	40.070	12	3.010	1.00
196	4.15	20	15.317	41.090	40.840	41.260	11	3.077	1.00
196	4.15	20	16.405	42.273	42.040	42.460	240	3.369	0.99
196	4.15	20	17.474	43.432	43.180	43.630	5	3.299	1.00
197	4.00	20	12.068	15.891	15.840	15.920	181	0.386	0.98
197	4.00	20	13.152	17.339	17.300	17.370	399	0.351	0.96
197	4.00	20	14.237	18.781	18.750	18.800	570	0.353	0.95
197	4.00	20	15.317	20.211	20.180	20.230	627	0.447	0.95
197	4.00	20	16.405	21.645	21.610	21.660	418	0.605	0.97
197	4.00	20	17.474	23.047	23.000	23.070	299	0.715	0.98
198	4.28	20	10.987	14.499	13.860	14.810	199	0.340	0.96
198	4.28	20	12.068	15.948	15.290	16.250	311	0.376	0.95
198	4.28	20	13.152	17.401	16.730	17.690	314	0.632	0.96
198	4.28	20	14.237	18.850	18.160	19.120	464	0.766	0.95
198	4.28	20	15.317	20.290	19.590	20.540	220	1.354	0.98
198	4.28	20	16.405	21.735	21.030	21.970	13	1.826	1.00
198	4.28	20	17.474	23.149	22.430	23.360	138	1.881	0.99
199	4.85	20	8.818	10.345	9.820	10.790	263	0.380	0.93
199	4.85	20	9.864	11.607	11.010	12.070	336	0.433	0.93
199	4.85	20	10.987	12.963	12.290	13.480	425	0.670	0.93
199	4.85	20	12.068	14.270	13.520	14.850	427	0.897	0.94
199	4.85	20	13.152	15.582	14.760	16.230	243	1.731	0.97
199	4.85	20	14.237	16.896	16.000	17.600	196	2.161	0.98
199	4.85	20	15.317	18.207	17.230	18.970	110	2.726	0.99

# of sub-batch/cycle	enrichment	cycle #	cycle burnup	sub-batch burnup	Min. sub-batch burnup	Max. sub-batch burnup	Decrement bias (pcm)	Sensitivity (%)	Exposure Multiplier from r.m.s. Minimization
199	4.85	20	16.405	19.527	18.470	20.350	120	3.108	0.99
199	4.85	20	17.474	20.825	19.700	21.700	5	3.740	1.00
200	3.85	10	9.344	11.859	10.673	13.045	16	0.334	0.99
200	3.85	10	10.425	13.284	11.956	14.612	18	0.565	0.99
200	3.85	10	11.507	14.713	13.242	16.184	81	0.746	0.98
200	3.85	10	12.551	16.092	14.483	17.701	224	0.916	0.96
200	3.85	10	13.313	17.099	15.389	18.809	121	1.388	0.98
200	3.85	10	14.394	18.520	16.668	20.372	87	2.023	0.99
200	3.85	10	15.471	19.930	17.937	21.923	93	2.388	0.99
201	3.85	11	3.397	23.824	22.740	25.390	-126	2.642	1.01
201	3.85	11	3.668	24.012	22.830	25.700	-128	2.608	1.01
201	3.85	11	4.481	24.577	23.110	26.610	-287	2.366	1.02
201	3.85	11	5.083	24.994	23.310	27.290	28	2.874	1.00
201	3.85	11	6.166	25.750	23.690	28.510	-141	2.648	1.01
201	3.85	11	7.248	26.505	24.070	29.730	-146	2.794	1.01
201	3.85	11	8.327	27.257	24.460	30.940	17	2.862	1.00
201	3.85	11	9.409	28.014	24.850	32.140	6	3.113	1.00
201	3.85	11	10.274	28.622	25.170	33.100	380	3.256	0.98
201	3.85	11	11.315	29.356	25.570	34.250	569	3.065	0.97
201	3.85	11	12.400	30.127	25.990	35.450	197	3.476	0.99
201	3.85	11	13.092	30.620	26.260	36.210	199	3.352	0.99
201	3.85	11	14.568	31.678	26.850	37.820	-200	2.880	1.01
201	3.85	11	15.518	32.364	27.240	38.860	3	3.180	1.00
202	3.85	12	3.166	30.178	29.410	30.990	5	1.013	1.00
202	3.85	12	4.326	31.063	29.910	32.270	200	0.994	0.99
202	3.85	12	5.368	31.861	30.350	33.420	203	0.994	0.99
202	3.85	12	6.452	32.692	30.820	34.620	206	0.933	0.99
202	3.85	12	7.536	33.526	31.290	35.820	619	0.787	0.97
202	3.85	12	8.349	34.153	31.640	36.720	211	0.862	0.99
202	3.85	12	9.432	34.990	32.110	37.920	635	0.744	0.97
202	3.85	12	10.512	35.827	32.590	39.120	647	0.688	0.97
202	3.85	12	11.596	36.670	33.080	40.310	438	0.766	0.98
202	3.85	12	12.681	37.516	33.580	41.510	439	0.868	0.98
202	3.85	12	13.803	38.393	34.110	42.740	228	1.012	0.99
202	3.85	12	14.847	39.213	34.610	43.880	460	0.825	0.98
202	3.85	12	15.925	40.063	35.140	45.050	697	0.754	0.97
203	3.95	10	11.507	12.853	11.568	14.138	22	0.356	1.00
203	3.95	10	12.551	14.004	12.604	15.404	174	0.394	0.98
203	3.95	10	13.313	14.844	13.360	16.328	-137	0.444	1.02
203	3.95	10	14.394	16.040	14.436	17.644	295	0.408	0.97
203	3.95	10	15.471	17.236	15.512	18.960	-78	0.576	1.01
204	3.95	11	3.397	20.634	20.520	20.720	313	0.398	0.98
204	3.95	11	3.668	20.800	20.700	20.870	748	0.319	0.95
204	3.95	11	4.481	21.298	21.220	21.350	319	0.434	0.98
204	3.95	11	5.083	21.666	21.610	21.710	476	0.503	0.97
204	3.95	11	6.166	22.331	22.300	22.420	794	0.303	0.95

# of sub-batch/cycle	enrichment	cycle #	cycle burnup	sub-batch burnup	Min. sub-batch burnup	Max. sub-batch burnup	Decrement bias (pcm)	Sensitivity (%)	Exposure Multiplier from r.m.s. Minimization
204	3.95	11	7.248	22.998	22.930	23.130	334	0.431	0.98
204	3.95	11	8.327	23.666	23.560	23.830	346	0.462	0.98
204	3.95	11	9.409	24.342	24.200	24.550	-486	0.542	1.03
204	3.95	11	10.274	24.887	24.720	25.120	-146	0.597	1.01
204	3.95	11	11.315	25.549	25.350	25.820	-158	0.613	1.01
204	3.95	11	12.400	26.247	26.000	26.560	15	0.585	1.00
204	3.95	11	13.092	26.696	26.430	27.040	-345	0.550	1.02
204	3.95	11	14.568	27.668	27.350	28.060	574	0.527	0.97
204	3.95	11	15.518	28.302	27.950	28.730	594	0.538	0.97
205	3.95	12	3.166	30.291	29.250	32.380	195	1.521	0.99
205	3.95	12	4.326	30.936	29.640	33.660	795	1.140	0.96
205	3.95	12	5.368	31.520	29.990	34.820	608	1.187	0.97
205	3.95	12	6.452	32.129	30.360	36.030	820	1.101	0.96
205	3.95	12	7.536	32.742	30.730	37.260	1046	1.018	0.95
205	3.95	12	8.349	33.203	31.010	38.170	420	1.330	0.98
205	3.95	12	9.432	33.822	31.380	39.400	643	1.229	0.97
205	3.95	12	10.512	34.442	31.760	40.620	440	1.262	0.98
205	3.95	12	11.596	35.069	32.150	41.840	224	1.389	0.99
205	3.95	12	12.681	35.702	32.540	43.050	220	1.298	0.99
205	3.95	12	13.803	36.362	32.960	44.310	905	1.256	0.96
205	3.95	12	14.847	36.982	33.360	45.470	1385	0.714	0.94
205	3.95	12	15.925	37.629	33.780	46.660	2116	0.397	0.91
206	3.85	10	12.551	16.102	14.492	17.712	281	0.303	0.96
206	3.85	10	14.394	18.461	16.615	20.307	550	0.325	0.94
206	3.85	10	15.471	19.832	17.849	21.815	629	0.305	0.94
207	3.85	11	3.397	24.214	22.780	25.670	326	1.289	0.98
207	3.85	11	3.668	24.442	22.920	25.980	329	1.382	0.98
207	3.85	11	4.481	25.127	23.340	26.930	170	1.397	0.99
207	3.85	11	5.083	25.631	23.650	27.630	669	1.062	0.96
207	3.85	11	6.166	26.537	24.210	28.890	346	1.246	0.98
207	3.85	11	7.248	27.440	24.770	30.140	350	1.345	0.98
207	3.85	11	8.327	28.341	25.330	31.380	191	1.407	0.99
207	3.85	11	9.409	29.245	25.900	32.620	-172	1.255	1.01
207	3.85	11	10.274	29.968	26.360	33.610	761	1.031	0.96
207	3.85	11	11.315	30.839	26.920	34.790	1159	0.794	0.94
207	3.85	11	12.400	31.746	27.510	36.020	398	1.429	0.98
207	3.85	11	13.092	32.327	27.890	36.800	208	1.382	0.99
207	3.85	11	14.568	33.571	28.710	38.470	-597	0.877	1.03
207	3.85	11	15.518	34.373	29.250	39.540	-194	1.163	1.01
208	3.90	11	6.166	7.904	7.610	8.060	1	0.369	0.99
208	3.90	11	7.248	9.292	8.950	9.480	-24	0.512	1.00
208	3.90	11	8.327	10.674	10.270	10.900	-117	0.585	1.02
208	3.90	11	9.409	12.056	11.590	12.310	-75	0.874	1.01
208	3.90	11	10.274	13.156	12.650	13.440	0	1.201	1.00
208	3.90	11	11.315	14.476	13.910	14.790	181	1.274	0.98
208	3.90	11	12.400	15.844	15.230	16.190	-59	1.635	1.01



# of sub-batch/cycle	enrichment	cycle #	cycle burnup	sub-batch burnup	Min. sub-batch burnup	Max. sub-batch burnup	Decrement bias (pcm)	Sensitivity (%)	Exposure Multiplier from r.m.s. Minimization
208	3.90	11	13.092	16.714	16.070	17.080	15	2.094	1.00
208	3.90	11	14.568	18.560	17.850	18.970	-76	2.366	1.01
208	3.90	11	15.518	19.740	18.990	20.170	166	2.474	0.99
209	3.90	12	3.166	23.460	23.240	23.750	-600	0.622	1.04
209	3.90	12	4.326	24.640	24.430	24.840	-464	0.661	1.03
209	3.90	12	5.368	25.696	25.410	25.980	-478	0.625	1.03
209	3.90	12	6.452	26.789	26.420	27.320	-329	0.655	1.02
209	3.90	12	7.536	27.878	27.430	28.670	-509	0.649	1.03
209	3.90	12	8.349	28.693	28.180	29.680	-353	0.676	1.02
209	3.90	12	9.432	29.778	29.190	31.020	-360	0.694	1.02
209	3.90	12	10.512	30.859	30.190	32.360	-370	0.719	1.02
209	3.90	12	11.596	31.943	31.190	33.690	-383	0.728	1.02
209	3.90	12	12.681	33.029	32.200	35.020	-200	0.821	1.01
209	3.90	12	13.803	34.154	33.250	36.380	-202	0.708	1.01
209	3.90	12	14.847	35.202	34.230	37.640	-200	0.757	1.01
209	3.90	12	15.925	36.287	35.250	38.940	-202	0.813	1.01
210	4.15	11	9.409	10.558	9.790	11.780	205	0.344	0.96
210	4.15	11	11.315	12.718	11.760	14.220	330	0.438	0.95
210	4.15	11	12.400	13.952	12.890	15.610	453	0.484	0.94
210	4.15	11	13.092	14.741	13.610	16.500	492	0.576	0.94
210	4.15	11	14.568	16.429	15.150	18.380	292	0.949	0.97
210	4.15	11	15.518	17.518	16.150	19.590	327	1.099	0.97
211	4.15	12	3.166	21.989	20.560	23.960	-15	2.521	1.00
211	4.15	12	4.326	23.452	22.000	25.390	293	2.443	0.98
211	4.15	12	5.368	24.758	23.290	26.650	306	2.535	0.98
211	4.15	12	6.452	26.106	24.620	27.970	323	2.494	0.98
211	4.15	12	7.536	27.448	25.940	29.280	507	2.303	0.97
211	4.15	12	8.349	28.449	26.920	30.260	164	2.872	0.99
211	4.15	12	9.432	29.778	28.230	31.560	357	2.613	0.98
211	4.15	12	10.512	31.097	29.520	32.850	364	2.677	0.98
211	4.15	12	11.596	32.414	30.820	34.140	180	2.887	0.99
211	4.15	12	12.681	33.727	32.110	35.420	-6	2.932	1.00
211	4.15	12	13.803	35.078	33.440	36.740	192	3.270	0.99
211	4.15	12	14.847	36.332	34.670	37.970	419	2.750	0.98
211	4.15	12	15.925	37.622	35.940	39.240	427	2.620	0.98
212	3.90	11	12.400	16.111	15.730	16.290	158	0.309	0.98
212	3.90	11	13.092	17.006	16.610	17.190	176	0.361	0.98
212	3.90	11	14.568	18.905	18.470	19.100	623	0.493	0.94
212	3.90	11	15.518	20.118	19.660	20.320	809	0.435	0.93
213	3.90	12	3.166	23.323	22.270	24.490	-598	1.392	1.04
213	3.90	12	4.326	24.317	22.850	25.840	-458	1.436	1.03
213	3.90	12	5.368	25.208	23.370	27.050	-314	1.533	1.02
213	3.90	12	6.452	26.131	23.910	28.300	-322	1.469	1.02
213	3.90	12	7.536	27.053	24.450	29.540	-497	1.404	1.03
213	3.90	12	8.349	27.743	24.860	30.470	-513	1.443	1.03
213	3.90	12	9.432	28.663	25.410	31.700	-525	1.356	1.03

# of sub-batch/cycle	enrichment	cycle #	cycle burnup	sub-batch burnup	Min. sub-batch burnup	Max. sub-batch burnup	Decrement bias (pcm)	Sensitivity (%)	Exposure Multiplier from r.m.s. Minimization
213	3.90	12	10.512	29.580	25.960	32.930	-538	1.393	1.03
213	3.90	12	11.596	30.502	26.520	34.150	-555	1.350	1.03
213	3.90	12	12.681	31.426	27.100	35.370	-572	1.359	1.03
213	3.90	12	13.803	32.384	27.700	36.670	-382	1.533	1.02
213	3.90	12	14.847	33.280	28.270	37.890	17	1.771	1.00
213	3.90	12	15.925	34.207	28.870	39.130	28	1.941	1.00
214	3.90	13	3.862	33.136	33.060	33.840	803	0.828	0.96
214	3.90	13	4.945	33.960	33.530	35.030	819	0.810	0.96
214	3.90	13	7.109	35.607	34.490	37.440	1279	0.580	0.94
214	3.90	13	8.193	36.430	34.970	38.650	862	0.788	0.96
214	3.90	13	9.059	37.079	35.350	39.620	1098	0.716	0.95
214	3.90	13	9.922	37.728	35.730	40.600	1108	0.714	0.95
214	3.90	13	10.502	38.169	35.990	41.250	668	0.818	0.97
214	3.90	13	11.368	38.822	36.380	42.220	1137	0.590	0.95
214	3.90	13	12.102	39.383	36.710	43.050	1147	0.598	0.95
214	3.90	13	13.221	40.238	37.230	44.300	926	0.701	0.96
214	3.90	13	14.304	41.067	37.730	45.510	707	0.762	0.97
214	3.90	13	15.116	41.691	38.110	46.410	477	0.808	0.98
214	3.90	13	16.197	42.524	38.630	47.610	482	0.801	0.98
214	3.90	13	17.276	43.359	39.160	48.790	1213	0.583	0.95
214	3.90	13	11.367	39.137	36.380	42.220	913	0.730	0.96
215	3.78	12	14.847	17.982	16.300	19.280	-550	0.399	1.05
215	3.78	12	15.925	19.282	17.470	20.670	-851	0.310	1.07
216	3.78	13	3.862	23.899	23.250	26.580	6	1.299	1.00
216	3.78	13	4.945	24.984	24.020	27.850	170	1.428	0.99
216	3.78	13	7.109	27.141	24.980	30.370	533	1.284	0.97
216	3.78	13	8.193	28.214	25.470	31.630	366	1.427	0.98
216	3.78	13	9.059	29.070	25.850	32.650	564	1.167	0.97
216	3.78	13	9.922	29.921	26.230	33.650	573	1.317	0.97
216	3.78	13	10.502	30.491	26.490	34.320	386	1.418	0.98
216	3.78	13	11.368	31.342	26.880	35.330	792	1.102	0.96
216	3.78	13	12.102	32.062	27.210	36.180	805	1.085	0.96
216	3.78	13	13.221	33.158	27.730	37.480	614	1.199	0.97
216	3.78	13	14.304	34.216	28.230	38.730	840	1.041	0.96
216	3.78	13	15.116	35.010	28.610	39.660	851	1.049	0.96
216	3.78	13	16.197	36.067	29.130	40.900	869	0.981	0.96
216	3.78	13	17.276	37.121	29.660	42.130	881	1.050	0.96
216	3.78	13	11.367	31.909	26.880	35.330	604	1.161	0.97
217	3.78	12	13.803	17.754	17.400	18.010	153	0.361	0.98
217	3.78	12	15.925	20.499	20.080	20.790	661	0.356	0.94
218	3.78	13	3.862	25.676	25.130	26.730	5	2.703	1.00
218	3.78	13	4.945	26.919	26.150	28.010	7	2.834	1.00
218	3.78	13	7.109	29.406	28.150	30.580	17	2.861	1.00
218	3.78	13	8.193	30.652	29.140	31.880	14	2.891	1.00
218	3.78	13	9.059	31.654	29.940	32.920	205	2.972	0.99
218	3.78	13	9.922	32.648	30.720	33.960	22	2.787	1.00

# of sub-batch/cycle	enrichment	cycle #	cycle burnup	sub-batch burnup	Min. sub-batch burnup	Max. sub-batch burnup	Decrement bias (pcm)	Sensitivity (%)	Exposure Multiplier from r.m.s. Minimization
218	3.78	13	10.502	33.313	31.250	34.650	17	2.697	1.00
218	3.78	13	11.368	34.307	32.030	35.690	229	2.767	0.99
218	3.78	13	12.102	35.145	32.700	36.560	233	2.847	0.99
218	3.78	13	13.221	36.418	33.710	37.890	29	2.643	1.00
218	3.78	13	14.304	37.644	34.690	39.170	33	2.603	1.00
218	3.78	13	15.116	38.560	35.430	40.130	-182	2.382	1.01
218	3.78	13	16.197	39.775	36.410	41.390	-189	2.210	1.01
218	3.78	13	17.276	40.980	37.400	42.640	-415	2.046	1.02
218	3.78	13	11.367	34.898	32.030	35.690	432	2.533	0.98
219	4.09	13	14.304	18.066	13.860	19.020	276	0.334	0.97
219	4.09	13	15.116	19.102	14.620	20.130	395	0.362	0.96
219	4.09	13	16.197	20.476	15.630	21.600	346	0.690	0.97
219	4.09	13	17.276	21.840	16.640	23.040	-220	1.120	1.02
220	4.09	14	3.291	26.674	21.890	28.420	-505	1.556	1.03
220	4.09	14	4.366	27.723	23.190	29.650	-344	1.901	1.02
220	4.09	14	6.530	29.826	25.780	32.120	5	2.424	1.00
220	4.09	14	7.613	30.875	27.060	33.360	6	2.378	1.00
220	4.09	14	8.696	31.921	28.320	34.600	200	2.454	0.99
220	4.09	14	9.779	32.967	29.420	35.830	409	2.334	0.98
220	4.09	14	10.754	33.906	29.900	36.940	414	2.373	0.98
220	4.09	14	12.921	35.992	30.990	39.380	-404	1.608	1.02
220	4.09	14	14.003	37.034	31.550	40.600	20	1.641	1.00
220	4.09	14	15.088	38.076	32.120	41.800	20	1.578	1.00
220	4.09	14	16.171	39.116	32.700	42.990	252	2.043	0.99
220	4.09	14	17.236	40.139	33.280	44.160	25	1.845	1.00
220	4.09	14	18.319	41.178	33.880	45.340	21	1.857	1.00
220	4.09	14	5.460	28.855	24.510	30.900	-175	1.987	1.01
221	4.39	13	8.193	9.483	8.660	10.220	40	0.423	0.99
221	4.39	13	9.059	10.460	9.520	11.310	96	0.344	0.98
221	4.39	13	9.922	11.429	10.370	12.410	97	0.481	0.98
221	4.39	13	10.502	12.082	10.940	13.140	102	0.498	0.98
221	4.39	13	11.368	13.053	11.790	14.250	238	0.441	0.96
221	4.39	13	12.102	13.878	12.510	15.180	257	0.450	0.96
221	4.39	13	13.221	15.136	13.600	16.610	214	0.649	0.97
221	4.39	13	14.304	16.354	14.660	18.000	325	0.638	0.96
221	4.39	13	15.116	17.270	15.460	19.040	262	0.894	0.97
221	4.39	13	16.197	18.492	16.530	20.430	193	1.078	0.98
221	4.39	13	17.276	19.716	17.600	21.820	-249	1.441	1.02
221	4.39	13	11.367	13.098	11.790	14.250	416	0.305	0.93
222	4.39	14	3.291	25.143	22.860	27.420	-324	1.538	1.02
222	4.39	14	4.366	26.416	24.120	28.710	-169	1.717	1.01
222	4.39	14	6.530	28.938	26.600	31.310	177	2.086	0.99
222	4.39	14	7.613	30.186	27.820	32.610	183	2.127	0.99
222	4.39	14	8.696	31.425	29.010	33.910	379	2.035	0.98
222	4.39	14	9.779	32.657	30.200	35.210	780	1.729	0.96
222	4.39	14	10.754	33.762	31.260	36.380	602	1.765	0.97

# of sub-batch/cycle	enrichment	cycle #	cycle burnup	sub-batch burnup	Min. sub-batch burnup	Max. sub-batch burnup	Decrement bias (pcm)	Sensitivity (%)	Exposure Multiplier from r.m.s. Minimization
222	4.39	14	12.921	36.201	33.600	38.970	205	1.905	0.99
222	4.39	14	14.003	37.413	34.760	40.260	647	1.730	0.97
222	4.39	14	15.088	38.622	35.930	41.530	878	1.710	0.96
222	4.39	14	16.171	39.827	37.090	42.800	691	1.642	0.97
222	4.39	14	17.236	41.010	38.230	44.040	699	1.503	0.97
222	4.39	14	18.319	42.208	39.400	45.290	702	1.626	0.97
222	4.39	14	5.460	27.759	25.380	30.020	-1	1.879	1.00
223	4.09	14	3.291	26.917	25.720	28.170	-11	0.940	1.00
223	4.09	14	4.366	27.813	26.270	29.430	164	1.100	0.99
223	4.09	14	6.530	29.619	27.380	31.950	361	1.183	0.98
223	4.09	14	7.613	30.525	27.930	33.210	554	1.138	0.97
223	4.09	14	8.696	31.433	28.500	34.470	570	1.070	0.97
223	4.09	14	9.779	32.342	29.060	35.720	786	1.014	0.96
223	4.09	14	10.754	33.162	29.580	36.850	797	0.953	0.96
223	4.09	14	12.921	34.988	30.740	39.330	409	1.085	0.98
223	4.09	14	14.003	35.903	31.340	40.560	848	0.922	0.96
223	4.09	14	15.088	36.820	31.940	41.790	651	0.936	0.97
223	4.09	14	16.171	37.738	32.560	43.010	1547	0.413	0.93
223	4.09	14	17.236	38.643	33.170	44.210	1114	0.599	0.95
223	4.09	14	18.319	39.564	33.810	45.420	1130	0.561	0.95
223	4.09	14	5.460	28.739	26.830	30.700	348	1.133	0.98
224	3.77	14	17.236	21.193	19.740	21.830	521	0.332	0.96
224	3.77	14	18.319	22.523	21.010	23.170	140	0.450	0.99
225	3.77	15	3.694	27.427	25.990	28.040	163	3.980	0.99
225	3.77	15	4.778	28.635	27.220	29.240	-3	4.147	1.00
225	3.77	15	5.741	29.708	28.310	30.300	173	4.395	0.99
225	3.77	15	6.865	30.959	29.580	31.540	-10	4.364	1.00
225	3.77	15	7.910	32.121	30.760	32.690	-4	4.534	1.00
225	3.77	15	9.034	33.367	32.020	33.920	1	4.682	1.00
225	3.77	15	10.207	34.662	33.330	35.200	1	4.706	1.00
225	3.77	15	11.175	35.727	34.400	36.250	6	4.676	1.00
225	3.77	15	12.225	36.877	35.570	37.390	8	4.649	1.00
225	3.77	15	13.294	38.041	36.740	38.550	12	4.694	1.00
225	3.77	15	14.375	39.212	37.920	39.730	8	4.534	1.00
225	3.77	15	15.460	40.379	39.100	40.900	9	4.520	1.00
225	3.77	15	15.801	40.745	39.470	41.260	11	4.380	1.00
225	3.77	15	16.512	41.507	40.230	42.030	6	4.388	1.00
225	3.77	15	17.597	42.660	41.390	43.190	6	4.414	1.00
225	3.77	15	18.643	43.767	42.510	44.300	6	4.386	1.00
225	3.77	15	19.765	44.950	43.700	45.480	229	4.674	0.99
226	4.33	14	12.921	13.721	12.640	14.850	80	0.545	0.99
226	4.33	14	14.003	14.865	13.650	16.140	194	0.388	0.98
226	4.33	14	16.171	17.172	15.670	18.720	650	0.325	0.94
226	4.33	14	17.236	18.314	16.670	20.000	593	0.497	0.95
226	4.33	14	18.319	19.482	17.700	21.310	19	1.156	1.00
227	4.33	15	3.694	24.621	22.850	26.630	300	0.435	0.98

# of sub-batch/cycle	enrichment	cycle #	cycle burnup	sub-batch burnup	Min. sub-batch burnup	Max. sub-batch burnup	Decrement bias (pcm)	Sensitivity (%)	Exposure Multiplier from r.m.s. Minimization
227	4.33	15	4.778	25.893	24.150	27.950	155	0.495	0.99
227	4.33	15	5.741	27.016	25.280	29.120	651	0.495	0.96
227	4.33	15	6.865	28.317	26.590	30.490	-2	0.578	1.00
227	4.33	15	7.910	29.521	27.810	31.750	0	0.650	1.00
227	4.33	15	9.034	30.808	29.100	33.110	182	0.685	0.99
227	4.33	15	10.207	32.144	30.430	34.510	190	0.739	0.99
227	4.33	15	11.175	33.242	31.530	35.670	195	0.724	0.99
227	4.33	15	12.225	34.427	32.710	36.910	398	0.741	0.98
227	4.33	15	13.294	35.629	33.900	38.170	412	0.696	0.98
227	4.33	15	14.375	36.841	35.120	39.430	423	0.725	0.98
227	4.33	15	15.460	38.053	36.330	40.680	430	0.711	0.98
227	4.33	15	15.801	38.433	36.690	41.070	651	0.680	0.97
227	4.33	15	16.512	39.223	37.460	41.890	666	0.673	0.97
227	4.33	15	17.597	40.428	38.620	43.120	677	0.711	0.97
227	4.33	15	18.643	41.586	39.740	44.300	692	0.667	0.97
227	4.33	15	19.765	42.826	40.940	45.560	239	0.641	0.99
228	4.33	17	4.527	43.099	42.920	43.190	464	0.463	0.98
228	4.33	17	5.609	43.494	43.240	43.620	710	0.398	0.97
228	4.33	17	6.691	43.891	43.570	44.060	466	0.531	0.98
228	4.33	17	7.745	44.279	43.890	44.480	717	0.435	0.97
228	4.33	17	8.829	44.680	44.220	44.920	723	0.419	0.97
228	4.33	17	9.912	45.084	44.550	45.360	983	0.341	0.96
228	4.33	17	10.994	45.491	44.880	45.810	-499	0.365	1.02
228	4.33	17	12.077	45.902	45.220	46.260	494	0.409	0.98
228	4.33	17	14.241	46.738	45.910	47.170	508	0.423	0.98
228	4.33	17	15.323	47.165	46.260	47.630	760	0.417	0.97
228	4.33	17	15.666	47.301	46.370	47.780	512	0.433	0.98
228	4.33	17	16.400	47.597	46.620	48.100	511	0.441	0.98
228	4.33	17	17.483	48.038	46.980	48.580	776	0.413	0.97
228	4.33	17	18.566	48.489	47.360	49.070	1048	0.301	0.96
229	4.33	14	12.921	15.186	14.710	15.610	463	0.380	0.94
229	4.33	14	14.003	16.439	15.960	16.870	373	0.371	0.96
229	4.33	14	15.088	17.696	17.200	18.140	226	0.389	0.98
229	4.33	14	16.171	18.955	18.460	19.410	795	0.322	0.93
229	4.33	14	17.236	20.196	19.690	20.650	138	0.891	0.99
229	4.33	14	18.319	21.461	20.960	21.920	-123	1.148	1.01
230	4.33	15	3.694	26.465	26.090	26.820	316	1.505	0.98
230	4.33	15	4.778	27.673	27.350	27.980	-1	1.558	1.00
230	4.33	15	5.741	28.738	28.470	29.000	173	1.719	0.99
230	4.33	15	6.865	29.972	29.760	30.170	-174	1.778	1.01
230	4.33	15	7.910	31.113	30.960	31.250	-179	1.697	1.01
230	4.33	15	9.034	32.334	32.250	32.410	-187	1.719	1.01
230	4.33	15	10.207	33.604	33.540	33.650	-383	1.636	1.02
230	4.33	15	11.175	34.650	34.520	34.760	-197	1.807	1.01
230	4.33	15	12.225	35.782	35.590	35.950	-405	1.614	1.02
230	4.33	15	13.294	36.933	36.680	37.170	-619	1.407	1.03

# of sub-batch/cycle	enrichment	cycle #	cycle burnup	sub-batch burnup	Min. sub-batch burnup	Max. sub-batch burnup	Decrement bias (pcm)	Sensitivity (%)	Exposure Multiplier from r.m.s. Minimization
230	4.33	15	14.375	38.096	37.780	38.400	-634	1.481	1.03
230	4.33	15	15.460	39.262	38.890	39.620	-435	1.536	1.02
230	4.33	15	15.801	39.628	39.240	40.010	-437	1.456	1.02
230	4.33	15	16.512	40.393	39.960	40.810	-878	1.275	1.04
230	4.33	15	17.597	41.557	41.080	42.030	-674	1.288	1.03
230	4.33	15	18.643	42.679	42.160	43.200	-688	1.193	1.03
230	4.33	15	19.765	43.883	43.310	44.450	-463	1.342	1.02
231	3.77	14	12.921	16.022	15.660	16.300	332	0.435	0.94
231	3.77	14	14.003	17.418	17.040	17.710	224	1.219	0.97
231	3.77	14	15.088	18.812	18.420	19.120	178	1.586	0.98
231	3.77	14	16.171	20.197	19.800	20.520	433	1.329	0.96
231	3.77	14	17.236	21.552	21.150	21.880	139	2.203	0.99
231	3.77	14	18.319	22.921	22.520	23.260	-260	2.372	1.02
232	3.77	15	3.694	26.394	25.520	27.680	-153	1.293	1.01
232	3.77	15	4.778	27.163	26.010	28.850	-162	1.330	1.01
232	3.77	15	5.741	27.845	26.450	29.890	11	1.569	1.00
232	3.77	15	6.865	28.640	26.960	31.090	-171	1.598	1.01
232	3.77	15	7.910	29.380	27.440	32.200	0	1.665	1.00
232	3.77	15	9.034	30.177	27.960	33.420	2	1.790	1.00
232	3.77	15	10.207	31.012	28.500	34.690	2	1.852	1.00
232	3.77	15	11.175	31.703	28.960	35.740	2	1.892	1.00
232	3.77	15	12.225	32.456	29.470	36.880	191	1.997	0.99
232	3.77	15	13.294	33.226	29.990	38.020	195	1.997	0.99
232	3.77	15	14.375	34.009	30.530	39.180	198	2.008	0.99
232	3.77	15	15.460	34.798	31.080	40.330	201	2.000	0.99
232	3.77	15	15.801	35.048	31.250	40.700	207	1.878	0.99
232	3.77	15	16.512	35.570	31.620	41.450	210	1.948	0.99
232	3.77	15	17.597	36.369	32.190	42.600	211	1.964	0.99
232	3.77	15	18.643	37.144	32.750	43.700	216	1.950	0.99
232	3.77	15	19.765	37.981	33.360	44.890	216	1.931	0.99
233	3.77	16	3.216	35.424	34.920	36.030	-426	0.497	1.02
233	3.77	16	4.299	35.869	35.370	36.460	-634	0.453	1.03
233	3.77	16	5.497	36.365	35.880	36.940	-9	0.713	1.00
233	3.77	16	6.465	36.768	36.300	37.330	-219	0.676	1.01
233	3.77	16	7.547	37.223	36.770	37.770	-222	0.645	1.01
233	3.77	16	8.629	37.682	37.250	38.210	-436	0.613	1.02
233	3.77	16	9.674	38.132	37.720	38.640	-440	0.586	1.02
233	3.77	16	10.796	38.621	38.230	39.110	-217	0.790	1.01
233	3.77	16	11.880	39.099	38.730	39.570	-219	0.788	1.01
233	3.77	16	12.962	39.583	39.230	40.030	-443	0.691	1.02
233	3.77	16	14.046	40.076	39.740	40.500	-668	0.598	1.03
233	3.77	16	16.215	41.084	40.790	41.470	-457	0.707	1.02
233	3.77	16	17.297	41.600	41.330	41.960	-460	0.729	1.02
233	3.77	16	18.458	42.162	41.920	42.500	-465	0.757	1.02
234	4.16	15	10.207	13.159	12.440	13.410	48	0.546	0.99
234	4.16	15	11.175	14.435	13.640	14.710	65	0.859	0.99

# of sub-batch/cycle	enrichment	cycle #	cycle burnup	sub-batch burnup	Min. sub-batch burnup	Max. sub-batch burnup	Decrement bias (pcm)	Sensitivity (%)	Exposure Multiplier from r.m.s. Minimization
234	4.16	15	12.225	15.815	14.940	16.110	-67	1.543	1.01
234	4.16	15	13.294	17.214	16.270	17.520	13	1.723	1.00
234	4.16	15	14.375	18.623	17.610	18.950	10	2.337	1.00
234	4.16	15	15.460	20.028	18.950	20.360	-104	2.757	1.01
234	4.16	15	15.801	20.469	19.370	20.810	9	2.813	1.00
234	4.16	15	16.512	21.385	20.260	21.730	136	2.995	0.99
234	4.16	15	17.597	22.774	21.590	23.130	8	3.623	1.00
234	4.16	15	18.643	24.105	22.880	24.500	8	3.898	1.00
234	4.16	15	19.765	25.525	24.250	25.960	-152	3.899	1.01
235	4.16	16	3.216	29.132	27.980	30.030	-336	5.621	1.02
235	4.16	16	4.299	30.159	28.510	31.260	-347	5.786	1.02
235	4.16	16	5.497	31.284	29.090	32.590	-176	6.304	1.01
235	4.16	16	6.465	32.191	29.570	33.680	-183	6.537	1.01
235	4.16	16	7.547	33.202	30.110	34.900	-188	6.613	1.01
235	4.16	16	8.629	34.211	30.650	36.110	-192	6.790	1.01
235	4.16	16	9.674	35.184	31.190	37.280	-196	6.835	1.01
235	4.16	16	10.796	36.227	31.770	38.530	8	7.538	1.00
235	4.16	16	11.880	37.235	32.340	39.730	8	7.605	1.00
235	4.16	16	12.962	38.240	32.920	40.930	8	7.635	1.00
235	4.16	16	14.046	39.246	33.510	42.120	9	7.662	1.00
235	4.16	16	16.215	41.262	34.710	44.490	4	7.589	1.00
235	4.16	16	17.297	42.268	35.320	45.670	3	7.574	1.00
235	4.16	16	18.458	43.349	35.980	46.920	4	7.565	1.00
236	4.16	17	3.444	39.467	38.480	40.010	-2	0.518	1.00
236	4.16	17	4.527	39.968	39.040	40.480	-688	0.469	1.03
236	4.16	17	5.609	40.469	39.590	40.950	-920	0.394	1.04
236	4.16	17	6.691	40.974	40.150	41.430	-473	0.524	1.02
236	4.16	17	7.745	41.467	40.700	41.900	-475	0.516	1.02
236	4.16	17	8.829	41.976	41.260	42.380	-942	0.375	1.04
236	4.16	17	9.912	42.488	41.820	42.870	-1174	0.349	1.05
236	4.16	17	10.994	43.002	42.380	43.360	-1185	0.351	1.05
236	4.16	17	12.077	43.520	42.950	43.850	-956	0.424	1.04
236	4.16	17	14.241	44.570	44.090	44.860	-1205	0.440	1.05
236	4.16	17	15.323	45.105	44.670	45.370	-742	0.556	1.03
236	4.16	17	15.666	45.275	44.860	45.530	-243	0.763	1.01
236	4.16	17	16.400	45.643	45.260	45.890	-247	0.773	1.01
236	4.16	17	17.483	46.193	45.850	46.410	2	0.815	1.00
236	4.16	17	18.566	46.751	46.450	46.950	259	0.778	0.99
237	4.56	15	7.910	8.690	7.590	9.180	32	0.492	0.99
237	4.56	15	9.034	9.915	8.620	10.520	80	0.764	0.98
237	4.56	15	10.207	11.196	9.700	11.930	196	0.739	0.96
237	4.56	15	11.175	12.257	10.590	13.090	175	0.997	0.97
237	4.56	15	12.225	13.412	11.560	14.370	131	1.366	0.98
237	4.56	15	13.294	14.592	12.560	15.670	305	1.403	0.96
237	4.56	15	14.375	15.792	13.570	16.990	259	1.705	0.97
237	4.56	15	15.460	17.002	14.590	18.320	92	2.408	0.99

# of sub-batch/cycle	enrichment	cycle #	cycle burnup	sub-batch burnup	Min. sub-batch burnup	Max. sub-batch burnup	Decrement bias (pcm)	Sensitivity (%)	Exposure Multiplier from r.m.s. Minimization
237	4.56	15	15.801	17.384	14.920	18.740	202	2.159	0.98
237	4.56	15	16.512	18.181	15.590	19.610	430	1.914	0.96
237	4.56	15	17.597	19.402	16.640	20.940	236	2.707	0.98
237	4.56	15	18.643	20.584	17.650	22.220	254	2.970	0.98
237	4.56	15	19.765	21.858	18.750	23.600	134	3.519	0.99
238	4.56	16	3.216	26.207	23.100	27.910	-16	3.525	1.00
238	4.56	16	4.299	27.484	24.400	29.170	-16	3.691	1.00
238	4.56	16	5.497	28.884	25.860	30.540	-8	3.719	1.00
238	4.56	16	6.465	30.004	27.020	31.640	-9	4.011	1.00
238	4.56	16	7.547	31.249	28.330	32.860	-10	4.136	1.00
238	4.56	16	8.629	32.489	29.640	34.070	-10	4.085	1.00
238	4.56	16	9.674	33.681	30.910	35.240	-10	4.054	1.00
238	4.56	16	10.796	34.957	32.280	36.490	193	4.400	0.99
238	4.56	16	11.880	36.185	33.600	37.690	199	4.466	0.99
238	4.56	16	12.962	37.408	34.920	38.890	206	4.442	0.99
238	4.56	16	14.046	38.629	36.240	40.080	214	4.478	0.99
238	4.56	16	16.215	41.064	38.860	42.460	5	4.217	1.00
238	4.56	16	17.297	42.274	40.160	43.640	5	4.190	1.00
238	4.56	16	18.458	43.569	41.550	44.910	5	4.126	1.00
239	4.37	16	11.880	14.801	13.730	15.810	4	0.353	1.00
239	4.37	16	12.962	16.174	15.050	17.250	159	0.525	0.98
239	4.37	16	14.046	17.546	16.320	18.690	273	0.619	0.97
239	4.37	16	16.215	20.285	18.840	21.550	345	0.936	0.97
239	4.37	16	17.297	21.646	20.100	22.970	257	1.094	0.98
239	4.37	16	18.458	23.102	21.450	24.480	282	1.200	0.98
240	4.37	17	3.444	28.735	27.020	30.110	-4	5.459	1.00
240	4.37	17	4.527	29.968	28.290	31.310	-180	5.369	1.01
240	4.37	17	5.609	31.190	29.520	32.500	-184	5.541	1.01
240	4.37	17	6.691	32.406	30.610	33.700	-189	5.852	1.01
240	4.37	17	7.745	33.585	31.670	34.910	-193	5.860	1.01
240	4.37	17	8.829	34.796	32.780	36.160	-196	5.930	1.01
240	4.37	17	9.912	36.004	33.890	37.400	2	6.563	1.00
240	4.37	17	10.994	37.208	35.010	38.630	1	6.571	1.00
240	4.37	17	12.077	38.413	36.140	39.870	221	6.475	0.99
240	4.37	17	14.241	40.812	38.410	42.330	225	6.323	0.99
240	4.37	17	15.323	42.009	39.560	43.550	10	7.132	1.00
240	4.37	17	15.666	42.387	39.920	43.940	235	6.489	0.99
240	4.37	17	16.400	43.197	40.690	44.760	4	6.971	1.00
240	4.37	17	17.483	44.388	41.840	45.970	8	6.991	1.00
240	4.37	17	18.566	45.576	42.990	47.180	11	6.836	1.00
241	4.37	18	3.310	47.393	46.500	49.260	-760	0.440	1.03
241	4.37	18	4.393	47.735	46.920	49.500	-267	0.580	1.01
241	4.37	18	5.403	48.057	47.320	49.720	-268	0.631	1.01
241	4.37	18	6.487	48.406	47.760	49.970	-764	0.563	1.03
241	4.37	18	7.569	48.759	48.180	50.210	-768	0.524	1.03
241	4.37	18	8.652	49.116	48.590	50.460	-12	0.825	1.00



# of sub-batch/cycle	enrichment	cycle #	cycle burnup	sub-batch burnup	Min. sub-batch burnup	Max. sub-batch burnup	Decrement bias (pcm)	Sensitivity (%)	Exposure Multiplier from r.m.s. Minimization
241	4.37	18	9.735	49.477	49.020	50.710	-521	0.685	1.02
241	4.37	18	11.901	50.221	49.870	51.230	-264	0.789	1.01
241	4.37	18	12.945	50.583	50.240	51.480	-2	0.909	1.00
241	4.37	18	14.067	50.978	50.520	51.760	-1	0.938	1.00
241	4.37	18	15.149	51.366	50.800	52.030	257	1.003	0.99
241	4.37	18	16.232	51.761	51.090	52.320	531	0.921	0.98
241	4.37	18	17.313	52.164	51.390	52.600	532	0.972	0.98
242	4.67	16	7.547	8.671	7.710	9.550	-103	0.318	1.03
242	4.67	16	8.629	9.909	8.800	10.910	-12	0.532	1.00
242	4.67	16	9.674	11.102	9.850	12.230	-14	0.733	1.00
242	4.67	16	10.796	12.379	10.980	13.640	117	0.832	0.98
242	4.67	16	11.880	13.610	12.070	14.990	135	1.133	0.98
242	4.67	16	12.962	14.835	13.150	16.340	160	1.248	0.98
242	4.67	16	14.046	16.063	14.240	17.680	265	1.408	0.97
242	4.67	16	16.215	18.523	16.430	20.380	218	1.896	0.98
242	4.67	16	17.297	19.752	17.530	21.710	227	2.092	0.98
242	4.67	16	18.458	21.072	18.720	23.150	247	2.293	0.98
243	4.67	17	3.444	26.378	22.600	28.860	-625	0.467	1.04
243	4.67	17	4.527	27.554	23.410	30.120	-974	0.450	1.06
243	4.67	17	5.609	28.715	24.210	31.360	-674	0.553	1.04
243	4.67	17	6.691	29.866	25.020	32.590	-870	0.540	1.05
243	4.67	17	7.745	30.976	25.800	33.770	-540	0.683	1.03
243	4.67	17	8.829	32.113	26.600	34.970	-374	0.656	1.02
243	4.67	17	9.912	33.243	27.400	36.170	-190	0.745	1.01
243	4.67	17	10.994	34.367	28.200	37.350	-591	0.552	1.03
243	4.67	17	12.077	35.488	29.000	38.530	-199	0.823	1.01
243	4.67	17	14.241	37.719	30.620	40.870	-206	0.747	1.01
243	4.67	17	15.323	38.832	31.430	42.040	9	0.889	1.00
243	4.67	17	15.666	39.184	31.690	42.410	-425	0.758	1.02
243	4.67	17	16.400	39.938	32.250	43.200	-432	0.815	1.02
243	4.67	17	17.483	41.050	33.080	44.360	-216	0.838	1.01
243	4.67	17	18.566	42.163	33.920	45.520	14	0.931	1.00
244	4.67	18	3.310	44.663	36.640	47.790	716	0.678	0.97
244	4.67	18	4.393	45.080	37.220	48.110	-24	0.880	1.00
244	4.67	18	5.403	45.470	37.760	48.400	-24	0.931	1.00
244	4.67	18	6.487	45.893	38.340	48.720	482	0.943	0.98
244	4.67	18	7.569	46.318	38.930	49.030	485	1.042	0.98
244	4.67	18	8.652	46.748	39.510	49.360	-16	1.038	1.00
244	4.67	18	9.735	47.180	40.100	49.680	498	0.995	0.98
244	4.67	18	11.901	48.038	41.280	50.330	515	1.062	0.98
244	4.67	18	12.945	48.468	41.850	50.650	520	0.976	0.98
244	4.67	18	14.067	48.935	42.470	51.000	792	0.865	0.97
244	4.67	18	15.149	49.393	43.080	51.340	527	1.090	0.98
244	4.67	18	16.232	49.857	43.690	51.690	532	1.110	0.98
244	4.67	18	17.313	50.328	44.310	52.050	1086	0.919	0.96
245	4.35	17	14.241	18.219	18.000	18.370	72	0.322	0.99

# of sub-batch/cycle	enrichment	cycle #	cycle burnup	sub-batch burnup	Min. sub-batch burnup	Max. sub-batch burnup	Decrement bias (pcm)	Sensitivity (%)	Exposure Multiplier from r.m.s. Minimization
245	4.35	17	15.323	19.645	19.420	19.800	355	0.421	0.96
245	4.35	17	15.666	20.095	19.870	20.250	446	0.412	0.95
245	4.35	17	16.400	21.060	20.840	21.220	584	0.407	0.94
245	4.35	17	17.483	22.477	22.250	22.640	571	0.575	0.95
245	4.35	17	18.566	23.889	23.670	24.050	524	0.774	0.96
246	4.35	18	3.310	28.779	27.410	29.530	-501	0.607	1.03
246	4.35	18	4.393	29.839	28.120	30.770	-687	0.619	1.04
246	4.35	18	5.403	30.822	28.770	31.920	-532	0.667	1.03
246	4.35	18	6.487	31.876	29.480	33.140	-545	0.747	1.03
246	4.35	18	7.569	32.928	30.190	34.370	-559	0.827	1.03
246	4.35	18	8.652	33.983	30.910	35.590	-384	0.939	1.02
246	4.35	18	9.735	35.039	31.620	36.820	-195	1.089	1.01
246	4.35	18	11.901	37.172	33.060	39.280	6	1.286	1.00
246	4.35	18	12.945	38.197	33.760	40.470	-194	1.084	1.01
246	4.35	18	14.067	39.300	34.520	41.750	-197	1.160	1.01
246	4.35	18	15.149	40.366	35.250	42.980	445	1.388	0.98
246	4.35	18	16.232	41.433	36.000	44.210	234	1.443	0.99
246	4.35	18	17.313	42.500	36.750	45.430	472	1.367	0.98
247	4.75	17	7.745	9.105	8.400	9.710	-23	0.304	1.02
247	4.75	17	8.829	10.415	9.570	11.130	-23	0.304	1.01
247	4.75	17	9.912	11.730	10.740	12.550	21	0.423	0.99
247	4.75	17	10.994	13.049	11.910	13.990	92	0.359	0.97
247	4.75	17	12.077	14.373	13.070	15.430	132	0.418	0.97
247	4.75	17	15.323	18.359	16.540	19.790	553	0.309	0.93
248	4.75	18	3.310	27.989	25.530	29.840	-482	1.554	1.03
248	4.75	18	4.393	29.317	26.870	31.170	-505	1.602	1.03
248	4.75	18	5.403	30.549	28.120	32.400	-521	1.630	1.03
248	4.75	18	6.487	31.860	29.440	33.720	-361	1.931	1.02
248	4.75	18	7.569	33.162	30.750	35.030	-373	1.971	1.02
248	4.75	18	8.652	34.459	32.050	36.340	-193	2.185	1.01
248	4.75	18	9.735	35.748	33.340	37.640	-199	2.166	1.01
248	4.75	18	11.901	38.309	35.900	40.240	8	2.429	1.00
248	4.75	18	12.945	39.538	37.130	41.480	223	2.633	0.99
248	4.75	18	14.067	40.853	38.440	42.810	232	2.618	0.99
248	4.75	18	15.149	42.117	39.700	44.090	12	2.425	1.00
248	4.75	18	16.232	43.376	40.950	45.360	18	2.551	1.00
248	4.75	18	17.313	44.630	42.200	46.630	256	2.728	0.99
249	4.75	19	3.126	46.715	44.510	48.380	-21	0.738	1.00
249	4.75	19	4.210	47.070	44.910	48.620	731	0.799	0.97
249	4.75	19	5.294	47.427	45.310	48.850	486	0.974	0.98
249	4.75	19	6.378	47.787	45.710	49.090	748	0.906	0.97
249	4.75	19	7.462	48.148	46.110	49.330	496	0.953	0.98
249	4.75	19	8.507	48.497	46.490	49.570	1284	0.745	0.95
249	4.75	19	9.552	48.848	46.880	49.810	773	0.939	0.97
249	4.75	19	10.714	49.242	47.320	50.070	780	0.945	0.97
249	4.75	19	11.797	49.613	47.730	50.330	264	1.009	0.99

# of sub-batch/cycle	enrichment	cycle #	cycle burnup	sub-batch burnup	Min. sub-batch burnup	Max. sub-batch burnup	Decrement bias (pcm)	Sensitivity (%)	Exposure Multiplier from r.m.s. Minimization
249	4.75	19	12.879	49.988	48.150	50.590	534	1.006	0.98
249	4.75	19	13.962	50.368	48.580	51.030	-509	0.904	1.02
249	4.75	19	15.046	50.756	49.010	51.660	-513	0.804	1.02
249	4.75	19	16.129	51.150	49.460	52.290	11	0.971	1.00
249	4.75	19	17.213	51.554	49.910	52.930	564	1.003	0.98
249	4.75	19	18.297	51.966	50.370	53.580	566	1.171	0.98
250	4.75	17	8.829	10.539	10.420	10.660	56	0.345	0.98
250	4.75	17	9.912	11.847	11.720	11.990	171	0.433	0.96
250	4.75	17	10.994	13.149	13.010	13.300	377	0.364	0.93
250	4.75	17	12.077	14.450	14.300	14.620	456	0.418	0.93
250	4.75	17	14.241	17.042	16.860	17.240	364	1.108	0.96
250	4.75	17	15.323	18.337	18.150	18.550	196	1.675	0.98
250	4.75	17	15.666	18.746	18.550	18.960	628	1.017	0.94
250	4.75	17	16.400	19.624	19.420	19.850	340	1.575	0.97
250	4.75	17	17.483	20.920	20.710	21.160	368	1.743	0.97
250	4.75	17	18.566	22.215	21.990	22.470	268	2.192	0.98
251	4.75	18	3.310	27.808	27.530	28.170	-319	1.692	1.02
251	4.75	18	4.393	29.112	28.810	29.470	-334	1.804	1.02
251	4.75	18	5.403	30.310	29.980	30.650	-347	1.839	1.02
251	4.75	18	6.487	31.585	31.250	31.900	-178	2.098	1.01
251	4.75	18	7.569	32.848	32.500	33.130	-185	2.185	1.01
251	4.75	18	8.652	34.104	33.750	34.360	2	2.466	1.00
251	4.75	18	9.735	35.352	34.990	35.570	-195	2.241	1.01
251	4.75	18	11.901	37.825	37.460	38.020	216	2.614	0.99
251	4.75	18	12.945	39.015	38.630	39.260	226	2.573	0.99
251	4.75	18	14.067	40.289	39.890	40.590	454	2.472	0.98
251	4.75	18	15.149	41.516	41.100	41.860	11	2.521	1.00
251	4.75	18	16.232	42.739	42.310	43.130	242	2.692	0.99
251	4.75	18	17.313	43.959	43.510	44.400	254	2.765	0.99
252	4.75	19	3.126	46.357	46.030	46.780	-522	0.955	1.02
252	4.75	19	4.210	46.828	46.560	47.230	-24	1.288	1.00
252	4.75	19	5.294	47.302	47.080	47.680	-21	1.368	1.00
252	4.75	19	6.378	47.776	47.520	48.130	-17	1.434	1.00
252	4.75	19	7.462	48.252	47.950	48.580	-16	1.407	1.00
252	4.75	19	8.507	48.710	48.380	49.020	-271	1.417	1.01
252	4.75	19	9.552	49.171	48.800	49.460	255	1.645	0.99
252	4.75	19	10.714	49.685	49.270	49.970	-4	1.630	1.00
252	4.75	19	11.797	50.168	49.720	50.510	266	1.612	0.99
252	4.75	19	12.879	50.654	50.170	51.050	274	1.689	0.99
252	4.75	19	13.962	51.146	50.630	51.600	827	1.346	0.97
252	4.75	19	15.046	51.645	51.100	52.160	560	1.436	0.98
252	4.75	19	16.129	52.151	51.570	52.730	562	1.430	0.98
252	4.75	19	17.213	52.666	52.050	53.300	24	1.583	1.00
252	4.75	19	18.297	53.190	52.540	53.880	576	1.707	0.98
253	4.35	17	15.666	20.919	20.790	21.090	485	0.350	0.96
253	4.35	17	16.400	21.885	21.750	22.080	514	0.318	0.96

# of sub-batch/cycle	enrichment	cycle #	cycle burnup	sub-batch burnup	Min. sub-batch burnup	Max. sub-batch burnup	Decrement bias (pcm)	Sensitivity (%)	Exposure Multiplier from r.m.s. Minimization
253	4.35	17	17.483	23.303	23.150	23.540	698	0.345	0.95
253	4.35	17	18.566	24.714	24.550	24.990	903	0.314	0.94
254	4.35	18	3.310	30.236	30.010	30.690	-338	3.214	1.02
254	4.35	18	4.393	31.473	31.260	31.950	-355	3.357	1.02
254	4.35	18	5.403	32.610	32.420	33.090	-363	3.395	1.02
254	4.35	18	6.487	33.817	33.650	34.290	-371	3.578	1.02
254	4.35	18	7.569	35.012	34.790	35.470	-382	3.646	1.02
254	4.35	18	8.652	36.200	35.910	36.640	-390	3.680	1.02
254	4.35	18	9.735	37.383	37.030	37.790	-197	3.866	1.01
254	4.35	18	11.901	39.744	39.260	40.060	-200	3.910	1.01
254	4.35	18	12.945	40.876	40.320	41.150	17	4.138	1.00
254	4.35	18	14.067	42.090	41.470	42.330	18	4.095	1.00
254	4.35	18	15.149	43.260	42.570	43.560	16	4.269	1.00
254	4.35	18	16.232	44.427	43.680	44.780	15	4.180	1.00
254	4.35	18	17.313	45.591	44.780	46.000	257	4.552	0.99
255	4.05	18	12.945	14.526	13.340	16.810	176	0.301	0.98
255	4.05	18	14.067	15.780	14.470	18.300	300	0.305	0.97
255	4.05	18	15.149	16.988	15.560	19.740	-1	0.556	1.00
255	4.05	18	16.232	18.195	16.650	21.170	242	0.544	0.98
255	4.05	18	17.313	19.400	17.750	22.600	137	0.689	0.99
256	4.05	19	3.126	24.346	22.650	27.600	293	0.337	0.98
256	4.05	19	5.294	26.961	25.330	30.060	492	0.379	0.97
256	4.05	19	6.378	28.250	26.660	31.270	682	0.366	0.96
256	4.05	19	7.462	29.531	27.980	32.480	704	0.368	0.96
256	4.05	19	8.507	30.757	29.240	33.650	731	0.418	0.96
256	4.05	19	9.552	31.977	30.480	34.810	760	0.435	0.96
256	4.05	19	10.714	33.324	31.860	36.100	779	0.450	0.96
256	4.05	19	11.797	34.574	33.130	37.300	800	0.414	0.96
256	4.05	19	12.879	35.817	34.400	38.500	826	0.420	0.96
256	4.05	19	13.962	37.056	35.660	39.700	1271	0.348	0.94
256	4.05	19	15.046	38.290	36.910	40.900	437	0.309	0.98
256	4.05	19	17.213	40.748	39.410	43.280	904	0.320	0.96
256	4.05	19	18.297	41.970	40.650	44.470	1157	0.334	0.95
257	4.70	18	8.652	10.459	10.130	10.770	-2	0.404	1.00
257	4.70	18	9.735	11.844	11.470	12.180	1	0.549	0.99
257	4.70	18	11.901	14.641	14.140	15.060	61	0.839	0.98
257	4.70	18	12.945	16.000	15.420	16.470	17	0.908	1.00
257	4.70	18	14.067	17.467	16.810	17.980	73	0.965	0.99
257	4.70	18	15.149	18.882	18.140	19.450	152	1.078	0.98
257	4.70	18	16.232	20.298	19.470	20.950	189	1.150	0.98
257	4.70	18	17.313	21.712	20.800	22.440	121	1.411	0.99
258	4.70	19	3.126	26.966	26.050	27.770	-750	0.897	1.05
258	4.70	19	4.210	28.313	27.360	29.140	-306	1.090	1.02
258	4.70	19	5.294	29.647	28.660	30.480	-486	1.253	1.03
258	4.70	19	6.378	30.970	29.940	31.820	-334	1.403	1.02
258	4.70	19	7.462	32.286	31.220	33.170	-349	1.358	1.02

# of sub-batch/cycle	enrichment	cycle #	cycle burnup	sub-batch burnup	Min. sub-batch burnup	Max. sub-batch burnup	Decrement bias (pcm)	Sensitivity (%)	Exposure Multiplier from r.m.s. Minimization
258	4.70	19	8.507	33.548	32.440	34.480	-361	1.528	1.02
258	4.70	19	9.552	34.806	33.670	35.780	15	1.920	1.00
258	4.70	19	10.714	36.199	35.030	37.230	-188	1.642	1.01
258	4.70	19	11.797	37.494	36.300	38.580	7	1.702	1.00
258	4.70	19	12.879	38.782	37.560	39.930	221	1.908	0.99
258	4.70	19	13.962	40.067	38.820	41.270	447	1.703	0.98
258	4.70	19	15.046	41.349	40.080	42.610	678	1.702	0.97
258	4.70	19	16.129	42.625	41.340	43.950	694	1.692	0.97
258	4.70	19	17.213	43.897	42.590	45.270	239	2.027	0.99
258	4.70	19	18.297	45.164	43.840	46.590	250	2.104	0.99
259	4.70	20	7.643	49.014	48.310	49.610	-1515	0.409	1.06
259	4.70	20	8.724	49.366	48.630	49.920	-509	0.906	1.02
259	4.70	20	9.800	49.718	48.950	50.230	-510	0.928	1.02
260	4.70	18	11.901	13.988	13.870	14.110	177	0.481	0.97
260	4.70	18	12.945	15.233	15.110	15.370	286	0.486	0.96
260	4.70	18	14.067	16.569	16.430	16.720	168	0.784	0.98
260	4.70	18	15.149	17.857	17.710	18.010	192	0.958	0.98
260	4.70	18	16.232	19.146	18.990	19.310	108	1.192	0.99
260	4.70	18	17.313	20.433	20.270	20.600	244	1.261	0.98
261	4.70	19	3.126	25.670	25.440	25.890	-277	2.081	1.02
261	4.70	19	4.210	27.027	26.770	27.270	-288	2.202	1.02
261	4.70	19	5.294	28.369	28.080	28.640	-139	2.651	1.01
261	4.70	19	6.378	29.700	29.380	30.010	-148	2.792	1.01
261	4.70	19	7.462	31.026	30.680	31.360	-157	2.792	1.01
261	4.70	19	8.507	32.304	31.930	32.670	202	3.031	0.99
261	4.70	19	9.552	33.577	33.180	33.960	210	3.269	0.99
261	4.70	19	10.714	34.990	34.570	35.400	12	3.219	1.00
261	4.70	19	11.797	36.307	35.870	36.740	211	3.239	0.99
261	4.70	19	12.879	37.619	37.160	38.070	217	3.368	0.99
261	4.70	19	13.962	38.929	38.450	39.400	225	3.267	0.99
261	4.70	19	15.046	40.234	39.740	40.720	449	3.044	0.98
261	4.70	19	16.129	41.535	41.030	42.040	457	3.060	0.98
261	4.70	19	17.213	42.830	42.310	43.350	690	2.835	0.97
261	4.70	19	18.297	44.119	43.590	44.650	475	3.268	0.98
262	4.70	20	5.475	47.663	47.400	47.920	264	0.410	0.99
262	4.70	20	6.559	48.088	47.880	48.290	1039	0.543	0.96
262	4.70	20	7.643	48.515	48.360	48.660	-504	0.386	1.02
262	4.70	20	8.724	48.942	48.840	49.040	272	0.733	0.99
262	4.70	20	9.800	49.370	49.320	49.420	-251	0.579	1.01
263	4.05	18	11.901	15.639	15.470	16.020	311	0.315	0.96
263	4.05	18	12.945	16.995	16.820	17.430	366	0.386	0.96
263	4.05	18	14.067	18.444	18.210	18.920	320	0.566	0.97
263	4.05	18	15.149	19.836	19.550	20.360	362	0.575	0.97
263	4.05	18	16.232	21.221	20.880	21.790	524	0.671	0.96
263	4.05	18	17.313	22.599	22.200	23.210	434	0.831	0.97
264	4.05	19	3.126	27.435	26.940	28.160	-318	2.014	1.02

# of sub-batch/cycle	enrichment	cycle #	cycle burnup	sub-batch burnup	Min. sub-batch burnup	Max. sub-batch burnup	Decrement bias (pcm)	Sensitivity (%)	Exposure Multiplier from r.m.s. Minimization
264	4.05	19	4.210	28.660	28.070	29.380	-323	1.980	1.02
264	4.05	19	5.294	29.876	29.180	30.600	-162	2.371	1.01
264	4.05	19	6.378	31.086	30.280	31.800	-165	2.452	1.01
264	4.05	19	7.462	32.294	31.380	33.000	-172	2.449	1.01
264	4.05	19	8.507	33.455	32.430	34.150	-175	2.587	1.01
264	4.05	19	9.552	34.617	33.500	35.310	214	3.118	0.99
264	4.05	19	10.714	35.906	34.680	36.590	210	2.964	0.99
264	4.05	19	11.797	37.110	35.790	37.790	12	2.844	1.00
264	4.05	19	12.879	38.309	36.910	38.990	224	3.112	0.99
264	4.05	19	13.962	39.508	38.020	40.180	450	2.854	0.98
264	4.05	19	15.046	40.707	39.140	41.380	235	2.952	0.99
264	4.05	19	16.129	41.903	40.270	42.570	237	2.960	0.99
264	4.05	19	17.213	43.096	41.390	43.760	237	3.166	0.99
264	4.05	19	18.297	44.287	42.520	44.940	248	3.219	0.99
265	4.50	19	3.126	3.709	3.310	3.880	-27	0.337	0.99
265	4.50	19	4.210	5.024	4.500	5.260	77	0.397	1.03
265	4.50	19	5.294	6.355	5.700	6.660	5	0.643	1.00
265	4.50	19	6.378	7.699	6.890	8.080	26	0.662	1.01
265	4.50	19	7.462	9.058	8.070	9.520	19	0.574	1.01
265	4.50	19	8.507	10.380	9.210	10.920	0	0.589	0.99
265	4.50	19	9.552	11.712	10.340	12.340	22	0.376	0.94
265	4.50	19	10.714	13.202	11.590	13.930	53	0.392	0.96
265	4.50	19	17.213	21.617	18.490	22.920	210	0.370	0.98
265	4.50	19	18.297	23.015	19.650	24.420	474	0.372	0.96
266	4.50	20	3.317	28.737	25.140	30.220	317	1.650	0.98
266	4.50	20	4.390	30.065	26.480	31.530	162	2.057	0.99
266	4.50	20	5.475	31.398	27.820	32.860	-21	2.732	1.00
266	4.50	20	6.559	32.723	29.150	34.170	-197	3.334	1.01
266	4.50	20	7.643	34.042	30.490	35.470	-404	2.808	1.02
266	4.50	20	8.724	35.353	31.820	36.770	186	3.373	0.99
266	4.50	20	9.800	36.654	33.160	38.050	194	3.398	0.99
267	4.80	19	9.552	11.351	10.910	11.770	-49	0.385	1.01
267	4.80	19	10.714	12.745	12.270	13.190	-223	0.394	1.04
267	4.80	19	11.797	14.042	13.540	14.520	66	0.500	0.99
267	4.80	19	12.879	15.332	14.800	15.830	160	0.620	0.98
267	4.80	19	13.962	16.621	16.060	17.150	444	0.489	0.95
267	4.80	19	15.046	17.911	17.330	18.460	785	0.334	0.92
267	4.80	19	16.129	19.201	18.590	19.770	558	0.596	0.95
267	4.80	19	17.213	20.491	19.860	21.080	505	0.933	0.96
267	4.80	19	18.297	21.783	21.130	22.390	290	1.341	0.98
268	4.80	20	3.317	27.426	26.840	27.990	-789	0.338	1.05
268	4.80	20	5.475	30.069	29.490	30.590	-1210	0.306	1.07
268	4.80	20	6.559	31.376	30.800	31.880	-1255	0.350	1.07
268	4.80	20	7.643	32.673	32.110	33.160	-570	0.634	1.03
268	4.80	20	8.724	33.954	33.420	34.420	-191	0.996	1.01
268	4.80	20	9.800	35.224	34.720	35.670	-4	1.057	1.00

# of sub-batch/cycle	enrichment	cycle #	cycle burnup	sub-batch burnup	Min. sub-batch burnup	Max. sub-batch burnup	Decrement bias (pcm)	Sensitivity (%)	Exposure Multiplier from r.m.s. Minimization
269	4.55	20	7.643	9.182	7.800	9.910	12	0.358	1.04
269	4.55	20	8.724	10.530	8.860	11.370	-1	0.685	1.00
269	4.55	20	9.800	11.882	9.900	12.840	21	0.816	0.98
270	4.90	20	9.800	12.204	12.040	12.420	50	0.415	0.99