CCL Quad PS E.Tanke SNS/ORNL Oak Ridge 12-Nov-2001

	Nominal setting from PARMILA : (August 2001)							Quad constant*	5.98	mT/A	*not measured yet; from note Magnet Calculations_rev1.doc
Quad name	Quad type	Energy (MeV)	rel. beta	L (cm)	Gquad (kG/cm)	GL (kG)	Current (A)	Max. PS current (A)	Loading of PS (%)		
CCL_Mag:QH00	R175QN45	86.8277	0.40258	8	-3.2612	-26.09	-436.0902	525	83.1	Individual	Thin quad (45 mm iron length; GL product in Parmila correct)

	Nominal setting from PARMILA : (August 2001)							Quad constant*	7.83	mT/A	* from T.Hunter file R177qn80 quad only.xls
Quad name		Energy (MeV)	rel. beta	L (cm)	Gquad (kG/cm)	GL (kG)	Current (A)	Max. PS current (A)	Loading of PS (%)		
CCL_Mag:QV101	R177QN80	88.2411	0.40543	8	3.1368	25.09	320.49042	400	80.1	Individual	First quad after first CCL segment
CCL_Mag:QH102	R177QN80	89.7066	0.40836	8	-3.2508	-26.01	-332.1379	400	83.0	Individual	
CCL_Mag:QV103	R177QN80	91.225	0.41135	8	2.9669	23.74	303.13155	400	75.8	Individual	

Quad name	Quad type	Energy (MeV)	rel. beta	L (cm)	Gquad (kG/cm)	GL (kG)	Current (A) (absolute)	Shunt current (A)	Series#	PS current (A)	
CCL_Mag:QH104	R177QN80	92.7973	0.41441	8	-2.6638	-21.31	272.16347	0.8	1	273.0	
CCL_Mag:QV105	R177QN80	94.4243	0.41754	8	2.6379	21.10	269.51724	3.5	2		
CCL_Mag:QH106	R177QN80	96.1071	0.42074	8	-2.6114	-20.89	266.80971	6.2	3		
CCL_Mag:QV107	R177QN80	97.8465	0.42401	8	2.5843	20.67	264.04087	9.0	4		
CCL_Mag:QH108	R177QN80	99.6436	0.42734	8	-2.5567	-20.45	261.22095	11.8	5		
CCL_Mag:QV109	R177QN80	101.4993	0.43073	8	2.5286	20.23	258.34994	14.7	6		
CCL_Mag:QH110	R177QN80	103.3714	0.43411	8	-2.5006	-20.00	255.48914	17.5	7		
CCL_Mag:QV111	R177QN80	105.2588	0.43747	8	2.4728	19.78	252.64879	20.4	8		Shunts will be 30 A (not 20 A)
CCL_Mag:QH112	R177QN80	107.1613	0.44082	8	-2.4451	-19.56	249.81865	1.2	1	251.0	
CCL_Mag:QV201	R177QN80	109.079	0.44415	8	2.4175	19.34	246.99872	4.0	2		
CCL_Mag:QH202	R177QN80	111.0116	0.44746	8	-2.3901	-19.12	244.19923	6.8	3		
CCL_Mag:QV203	R177QN80	112.9591	0.45075	8	2.3628	18.90	241.40996	9.6	4		
CCL_Mag:QH204	R177QN80	114.9214	0.45402	8	-2.3356	-18.68	238.63091	12.4	5		
CCL_Mag:QV205	R177QN80	116.8984	0.45728	8	2.3086	18.47	235.87229	15.1	6		
CCL_Mag:QH206	R177QN80	118.8899	0.46052	8	-2.2818	-18.25	233.1341	17.9	7		
CCL_Mag:QV207	R177QN80	120.896	0.46375	8	2.2551	18.04	230.40613	20.6	8		
CCL_Mag:QH208	R177QN80	122.9164	0.46695	8	-2.2285	-17.83	227.68838	1.3	1	229.0	

CCL_Mag:QV209	R177QN80	124.9512	0.47014	8	2.2021	17.62	224.99106	4.0	2	
CCL_Mag:QH210	R177QN80	127.0001	0.47331	8	-2.1758	-17.41	222.30396	6.7	3	
CCL_Mag:QV211	R177QN80	129.0632	0.47646	8	2.1497	17.20	219.63729	9.4	4	
CCL_Mag:QH212	R177QN80	131.1402	0.4796	8	-2.1238	-16.99	216.99106	12.0	5	
CCL_Mag:QV301	R177QN80	133.2311	0.48271	8	2.0979	16.78	214.34483	14.7	6	
CCL_Mag:QH302	R177QN80	135.3358	0.48581	8	-2.0723	-16.58	211.72925	17.3	7	
CCL_Mag:QV303	R177QN80	137.4542	0.48889	8	2.0467	16.37	209.11367	19.9	8	
CCL_Mag:QH304	R177QN80	139.5861	0.49196	8	-2.0213	-16.17	206.51852	0.5	1	207.0
CCL_Mag:QV305	R177QN80	141.7316	0.495	8	1.9924	15.94	203.56577	3.4	2	
CCL_Mag:QH306	R177QN80	143.8904	0.49803	8	-1.964	-15.71	200.66411	6.3	3	
CCL_Mag:QV307	R177QN80	146.0694	0.50105	8	1.9358	15.49	197.78289	9.2	4	
CCL_Mag:QH308	R177QN80	148.2651	0.50405	8	-1.9076	-15.26	194.90166	12.1	5	
CCL_Mag:QV309	R177QN80	150.4775	0.50705	8	1.8796	15.04	192.04087	15.0	6	
CCL_Mag:QH310	R177QN80	152.7066	0.51002	8	-1.8517	-14.81	189.19029	17.8	7	
CCL_Mag:QV311	R177QN80	154.9522	0.51299	8	1.8239	14.59	186.34994	20.7	8	
CCL_Mag:QH312	R177QN80	157.2143	0.51594	8	-1.7963	-14.37	183.53001	0.5	1	184.0
CCL_Mag:QV401	R177QN80	159.4929	0.51888	8	1.7687	14.15	180.71009	3.3	2	
CCL_Mag:QH402	R177QN80	161.7879	0.5218	8	-1.7414	-13.93	177.92082	6.1	3	
CCL_Mag:QV403	R177QN80	164.0992	0.52471	8	1.7141	13.71	175.13155	8.9	4	
CCL_Mag:QH404	R177QN80	166.4268	0.52761	8	-1.687	-13.50	172.36271	11.6	5	
CCL_Mag:QV405	R177QN80	168.7706	0.53049	8	1.66	13.28	169.60409	14.4	6	
CCL_Mag:QH406	R177QN80	171.1306	0.53336	8	-1.6331	-13.06	166.85568	17.1	7	
CCL_Mag:QV407	R177QN80	173.5067	0.53621	8	1.6064	12.85	164.12771	19.9	8	

Quad name	Quad type	Energy (MeV)	rel. beta	L (cm)	Gquad (kG/cm)	GL (kG)	Current (A)	Max. PS current (A)	Loading of PS (%)	
CCL_Mag:QH408	R177QN80	175.8988	0.53905	8	-1.5798	-12.64	-161.40996	400	40.4	Individual
CCL_Mag:QH409	R177QN80	178.307	0.54188	8	1.5533	12.43	158.70243	400	39.7	Individual
CCL_Mag:QH410	R177QN80	180.731	0.54469	8	-1.3881	-11.10	-141.82375	400	35.5	Individual
CCL_Mag:QH411	R177QN80	183.1709	0.54749	8	0.9057	7.25	92.53640	400	23.1	Individual

These last 4 PS were rated at 375 A before