



Jefferson Lab Alignment Group

Data Transmittal

TO: T. Maruta, N. Nakamura

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Checked:

: C1234

DETAILS:

Data: Step2b\HallC\HES_HKS\090706a

Below are the results of the HKS/HES target calibration performed on July 06, 2009. The coordinate system (in millimeters), is centered on the ideal target location 10 millimeters downstream from the face of the splitter magnet and rotated 17.5 degrees counter clockwise from incoming beam about the vertical axis. A +X is to the left, a +Z is downstream, and a +Y is up. The water target Z is to the upstream face of the upstream flange. Based on the overall fit to the temporary control points which were defined prior to splitter installation, coupled with the instability of the target ladder, the accuracy of the measurements is estimated to be around 0.3 millimeters.

TARGET	Z	X	Y	ENCODER
WF	-3.41	74.04	-0.32	0.0
1	0.14	101.81	-0.21	0.0
WF	-3.72	0.38	0.16	72.5
1	-0.12	28.37	0.28	72.5
1	-0.10	1.06	0.55	99.5
6	-0.70	-0.88	1.65	200.0
1	-0.26	-20.71	0.65	121.0
2	-0.28	-0.86	0.70	121.0
1	-0.24	-40.07	0.91	140.0
2	-0.40	-20.05	0.85	140.0
3	-0.42	-0.08	0.92	140.0
4	-0.48	19.97	0.95	140.0
5	-0.76	39.96	0.84	140.0
6	-0.54	59.96	0.94	140.0
WF	-3.96	-68.19	0.64	140.0
4	-0.67	-0.12	1.12	159.8
1	-0.32	-79.99	1.24	179.4
5	-0.64	0.01	1.41	179.4
1	-0.41	-99.98	1.51	199.1
6	-0.86	0.08	1.58	199.1
WF (repeat)	-3.31	73.73	-0.36	0.0
1 (repeat)	0.34	101.76	-0.21	0.0