

Jefferson Lab Alignment Group

DATA TRANSMITTAL

TO: Dave Kashy, Arne Freyberger

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FROM: Jim Dahlberg

Checked: # : 573

DETAILS:

Below are the results of the Hall B target / upstream beam line survey performed on Jan 27, 2000. Due to the inaccessibility of the target, the final location is based on a prorated value derived from the position of the upstream fiducials. Note the vertical position of the mini torus beam tube located just downstream of the target (the end which is visible from upstream of the torus). Given a radius of 12.7 mm for the tube (as per Dave Kashy), this leaves only 3 mm of clearance for beam. This point on the mini torus has not been previously surveyed after installation and may have been offset during previous runs. Steve Christo noticed the offset during the target alignment. The X and Y values are relative to the nominal incoming beam and the Z value is relative to the torus centerline. A positive X is to the beam left, a negative Y value is low, and a positive Z value is downstream. The deltas are in millimeters.

COMPONENT	ΔX	ΔY	ΔZ
BPM assembly upstream end	+0.1	+0.6	
BPM assembly middle	-----	+0.1	
BPM assembly downstream end	+0.0	+0.3	
Upstream end of torus	+1.3	-1.5	
Mini torus upstream flange	+1.2	-1.6	
Mini torus beam tube near downstream end	-----	-9.5	
Target	-0.2	-0.2	0.4