

g2p/GEp Beam Transport Meeting Minutes

Attendees: T. Michalski, P. Kjeldsen, E. Folts, R. Lauzé, A. Camsonne, D. Williams, JP Chen, Z. (Vick) Chen, L. Dillon-Townes, P. Degtiarenko, W. Gunning, K. Allada, A. Gavalya, C. Curtis, A. Saha

The following is a summary of issues discussed during the g2p/GEp Beam Transport Meeting:

- We continue to sort out the details regarding the FZ magnet PSs
 - Need additional load on the FZ1 PS; looking at using Al magnet coils as all the BB spares are required for 12 GeV – Simon Wood
 - Ed identified an existing “stand” for holding and protecting the Al magnet. It is currently in the BSY. The owner said we could use it for the experiment.
 - Joe Beaufait may not be able to get the PSs out of Hall C due to using 1 and the 2nd has items mounted to it. Not a priority before the 6 month SAD.
 - Polarity switch identified. Due to cost, the plan is to procure the 500A version.
- Butch stated we need to make sure we have the right straps on the FZ.
- Bill tested a Tektronix and Agilent signal generators. The Tektronix appears to drift while the Agilent appears rock steady. It is running in the lab. I/O is GPIB, RS232, and USB. Plan to buy 2.

STATUS:

OPTICS:

- Yves is updating orbits for different energy and target positions (location and angles).

MAGNETS:

- Nothing new to report

BEAM TRANSPORT:

- Region 1 – PS shielding box – it is not “hot” and can be bolted together (with rework) – need to look at cooling load and filtering
- Region 2 – nothing new to report
- Region 3 – FZ1 stand design needs a Hall A signature then ready to procure. FZ2 stand – designing, Shirley analyzing, will need stanchions on both sides to support viewer and articulating arm. Have a list of parts needed for positioning viewer and articulating arm, let’s review for getting from collaborators.
- Harps – assembly drawings and review in process

RAD CON:

- Nothing new to report

SOFTWARE:

- Nothing new to report

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VACUUM:

- No status update

INSTALLATION:

- No status update

ALIGNMENT:

- No status update

EES – I&C:

- Nothing additional to what has been reported already.

EES – OPS:

- Nothing new to report

EES – SSG:

- Set up meeting to review safety systems on g2p. Monday, 3/14/11.

TARGET/DUMP DESIGN ACTIVITIES:

- Redesign dump for 20° runs.

PHYSICS

- Define potential components to collaborators (Region 3 – FZ2 mechanism, articulating arm positioning, viewer positioning)

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Action Items:

Action Item #	Date Added	Action Item	Responsible Individual	Due Date	Date Closed
11	9/28/10	Define the settings for chicane magnet current monitoring.	Y. Roblin	By 3/11	
16	10/5/10	Understand why there is a hole in the center of the rastered beam that comes from the faster raster/slow raster combination. Stated to be a waveform generator issue. Clarify this. If not HW, then probably SW?	C. Cuevas B. Gunning	TBD	
23	11/16/10	Verify polarity switch for FZ magnets. We have one spare in house if needed.	R. Lauzé	12/30/10	
31	1/4/11	Procure, build, and test 14 Transport style BPM RF Modules	D. Williams / O. Garza	9/14/11	
35	1/4/11	BCM testing at low current, w/ helicity, in January.	J. Musson / A. Camsonne	3/?/11	
36	1/11/11	BPM testing with new electronics and stripline BPM in North Linac	J. Musson / D. Willaims	TBD	
37	2/1/11	Resolve open question on FZ magnet power supplies.	V. Chen	2/15/11	
39	2/15/11	Tolerance on FZ current. Replace with item 43 (TJM – 3/14/11)	Y. Roblin	TBD	3/14/11
41	3/14/11	Verify jacket for upside down girder BCM fits.	B. Dillon- Townes	3/22/11	
42	3/14/11	Need a decision on low current dump – thermal threshold interlock? How warm will the LC dump get? – Decision to add thermocouples – Alan G will add. Will have signal for MPS/FSD.	P. Degtiarenko(?)	3/22/11	
43	3/14/11	What is the required hysteresis required for the FZ1 and FZ2 magnets? What is the range of required current?	Y. Roblin	5/15/11	

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Design Decisions:

Date	Decision Item
8/31/10	The transport line exiting the FZ2 will have no vacuum connection to the target chamber. A beryllium window will terminate that line.
8/31/10	M20 BPM's were decided to be used on the transport line exiting the FZ2.
9/14/10	The Target will only be set at 80° and 90°, not 70°, per Al Gavalya.
9/14/10	The gap between the beam tube end and the target window was discussed. It should be minimized – consider 1 cm as a maximum gap. Re-opened during 9/21/10 meeting – look at using helium bag. Will use helium bag – issue closed.
9/30/10	The requirement for BPM accuracy is 0.1mm – per discussion at BPM requirements meeting and subsequent analysis/e-mail from K. Allada.
12/6/10	Use 5.5" M15 antenna style BPMs in articulating arm!
12/6/10	JP committed to a 2 cm raster, if need be, to accommodate threading the beam through the articulating arm.
1/11/11	Decision to use harps in tune mode rather than low current.