

g2p/GEp Beam Transport Meeting Minutes

Attendees: T. Michalski, P. Kjeldsen, R. Lauzé, A. Camsonne, D. Williams, JP Chen, Z. (Vick) Chen, L. Dillon-Townes, K. Allada, E. Folts, T. Delacruz

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

- Adding more runs – 2.2 GeV at “standard” target height, 90 deg and 20 deg
- Confirmed that SR coils are in EEL 122. Need update on when testing will commence.
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- BCM testing – good data, not perfectly linear – more testing to adjust gains and improve linearity – supports 1% accuracy
- BPM testing – initial results are promising – awaiting analysis of data (appear to be some open issues based on e-log of 4/28). Next steps and more testing per John Musson.

STATUS:

OPTICS:

- All runs complete and sent to Stephanie – including added ones from above.

MAGNETS:

- Nothing new to report

BEAM TRANSPORT:

- Region 1 – nothing new to report
- Region 2 – nothing new to report
- Region 3 – FZ1 stand – here in physics parking lot. FZ2 stand – delayed getting out due to complete SOW and shipping details. Everything done and to Procurement on Friday, 4/29. Still finalizing the support arms and positioning mechanism. Setting up a meeting with alignment, installation, vacuum, Ed to review installation plans.
- PS shielding box – modify existing assembly – design nearly done.
- Harps –Fabricating harp assembly with a local supplier. Need a delivery date. 6 wks for harp bellows.
- BPMs – complete – vacuum tested – ready for calibration/alignment.
- Not all parts are procured yet. Need to get parts procured! Tim and Butch to work this issue and communicate impact. Updating parts list.
- Finalizing cam.
- Butch will take care of getting the Al magnet moved into Hall A.

RAD CON:

- Sent JP radiation budget calculations.

SOFTWARE:

- When is the harp chassis going to be available? Dave says late June at the earliest.
- Calorimeter SW is complete as much as can be until married with actual calorimeter. DONE (for now)

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VACUUM:

- No status update

INSTALLATION:

- No status update

ALIGNMENT:

- No status update

EES – I&C:

- Harp – incorporating PCB layout comments.

EES – DCP:

- Have some spares. Testing of PSs will be in Hall A.

EES – SSG:

- No status update

TARGET/DUMP DESIGN ACTIVITIES:

- No status update

PHYSICS

- Readiness review set for May 6. Input to be submitted by 4/28 for distribution to the review team.
- Target magnet is here, undamaged!

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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 5/6	
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	
35	1/4/11	BCM testing at low current, w/ helicity, in January April.	J. Musson / A. Camsonne	4/?/11	
36	1/11/11	BPM testing with new electronics in North Linac – ½ done	J. Musson / D. Willaims	4/5/11	
37	2/1/11	Resolve open question on FZ magnet power supplies.	V. Chen	Ongoing	
41	3/14/11	Verify jacket for upside down girder BCM fits. Will make it fit.	B. Dillon-Townes	3/22/11	4/26/11
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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.
4/5/11	We will not accommodate a special 1.1 GeV run with the target at the pivot. There will be no change to the FZ2 stand design and no need to reposition the chicane. Evaluation of 1.1 GeV beam through 2.2 GeV chicane position to be performed.
4/18/11	It was agreed that we will be moving the target up 9cm for the 1.1, 1.7, and 2.2 GeV runs when the target is in the 87cm upstream location. For the 1.1 and 1.7 GeV runs, the target magnet will be at 2.5 T, versus the 5 T for all other runs.
4/26/11	Decision to use 4'x4' platform for Al magnet and address any safety issues – rather than alternative to use existing stand in BSY which requires rework.