

g2p/GEp Beam Transport Meeting Minutes

Attendees: K. Allada, T. Michalski, P. Kjeldsen, E. Folts, R. Lauzé, A. Camsonne, D. Williams, P. Degtiarenko, E. Forman, A. Gavalya, C. Curtis, T. Dela Cruz

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

- Discussed the need for 8 kG for FZ2 magnet. The concern regarding PS selection remains. Need to determine what is truly required. Current data is available, but we do not have the accompanying voltage data or the actual coil resistance measurement. Finalizing PS selection will finalize input power and cooling water definition.
- Raised the question of only using 2 harps for when target is in pivot position. Goal to stay our course. Is the harp on the upside down girder required for using the Moller? Tony has a “spare” harp in his office that he is willing to place into service. The cost savings to g2p program is truly appreciated. The encoder & BDU feedback cost ~\$3k.
- Look at the cost of the periscope for the viewer. Since the meeting, it was decided to place the CCD camera right on the viewer (eliminating the periscope). It will be shielded.
- Action Item 23 – 2 Danfysik PS, 1 with and 1 without switch, but have a spare switch. Issue raised regarding who was going to buy the PS cabling (PS to FZ magnets) and who would do the wiring. Bill Merz engaged regarding specification of the cabling and verifying PS selection. Ed’s crew will move PSs in place and supply AC. Ron will make sure we have PS to magnet cable and will have EES electricians wire them in.
- Action Item 35 – awaiting restart of beam to hall A, probably mid February.
- Discussed the list of things we might get from collaborators. Collaboration meeting is Friday, 2/4.

STATUS:

OPTICS:

- No status update

MAGNETS:

- Will look into returning BD magnets at the end of the experiment. Can Hall A get reimbursed?

BEAM TRANSPORT:

- Region 1 support structure due 2/11.
- Region 2 girder is being assembled in vacuum lab, except harp.
- Region 3 FZ1 stand design is almost complete. FZ2 stand will be 2 speed, motorized with articulating arm and supports for arm and viewer.
- BPMs have been ordered through the Machine Shop.
- Harp designs have been finalized and will be ordered.
- List of stuff for collaborators. Will be discussed at Friday’s meeting.
- Need a schedule.

RAD CON:

- Nothing new to report.

g2p/GEp Beam Transport Meeting Minutes

SOFTWARE:

- Have received SW from Arne for calorimeter. Have the controller from I&C. Need meetings on BCM and BPM.
- Question on SR waveform generators...are we going to use new ones?

VACUUM:

- No status update

INSTALLATION:

- No status update

ALIGNMENT:

- Nothing to report.

EES – I&C:

- Have a project code now for 14 Transport modules.
- Awaiting tests for BPM and BCM.

EES – OPS:

- PS cabling. Define and order.

EES – SSG:

- No status update

TARGET/DUMP DESIGN ACTIVITIES:

- No status update

PHYSICS

- Collaboration February 4th.

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	
12	9/28/10	Define if instrumentation is required for the low current dump. If so, what should be monitored?	TBD	TRACK to close	
16	10/5/10	Understand why there is a hole in the center of the rastered beam that	C. Cuevas	TBD	

g2p/GEp Beam Transport Meeting Minutes

		comes from the faster raster/slow raster combination. Stated to be a waveform generator issue. Clarify this. If not HW, then probably SW?	B. Gunning		
23	11/16/10	Verify polarity switch for FZ magnets. We have one spare in house if needed.	R. Lauzé	12/30/10	
24	11/23/10	Get FZ magnets from Physics Storage	T. Michalski	1/15/11	
29	12/6/10	Set up a topic specific meeting on BPM w/ new electronics – for SW	T. Michalski D. Williams	2/3/11	2/3/11
31	1/4/11	Procure, build, and test 14 Transport style BPM RF Modules	D. Williams / O. Garza	5/14/11	
34	1/4/11	Calorimeter SW from Arne.	A. Freyberger	2/14/11	2/1/11
35	1/4/11	BCM testing at low current, w/ helicity, in January.	J. Musson / O. Garza	Answer by 1/11/11	
36	1/11/11	BPM testing with new electronics and stripline BPM in North Linac	J. Musson / D. Williams	TBD	
37	2/1/11	Resolve open question on FZ magnet power supplies.	T. Michalski / R. Lauze	2/15/11	

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.