

g2p/GEp Beam Transport Meeting Minutes

Attendees: E. Folts, K. Allada, D. Williams, T. Michalski, A. Gavalya, P. Kjeldsen, Eric Forman, J.P. Chen

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

- We discussed the requirements for the Slow Raster – specifically, the required raster rate. The raster rate does not need to be in sync with the data acquisition rate. The raster rate will be set for 30 Hz. The data acquisition rate will be driven by the Qweak helicity – 1 kHz. The requirements for the Slow Raster can now be finalized and sent to Chris Cuevas and crew.
- BPM – measurements have been taken and we await presentation of the data. Anticipate receiving it next week.
- Eric Forman stated that steering the 2.5cm rastered beam through a 1.37” aperture wouldn’t be a problem. With the BPM data and this input, we should be able to finalize the articulating arm requirements for BPM, harp, beam tube diameter.
- Stated Arne’s not needing the Calorimeter for testing and calibrating the system. He just needs the controller chassis. Question raised on where the SW is. Pam to discuss this with Arne.
- Need to add an action item for getting the FZ magnets out of Physics storage.
- Need to get input on plans for 6 month down to insure all work to install experiment will be staffed appropriately.
- There seems to be an outstanding question regarding the PSs for the FZ magnets. The PS that Simon has to repair is not capable of driving either FZ.

STATUS:

OPTICS:

- No status update

MAGNETS:

- Need to get FZ magnets out of Physics Storage by mid January in order to have vacuum chambers installed.

BEAM TRANSPORT:

- The Experimental Definition Drawing is signed off.
- Still awaiting schedule.
- The list of materials to be procured is being updated – assess \$.

RAD CON:

- No status update.

SOFTWARE:

- Nothing new to report. Will check with Arne regarding Calorimeter software.

VACUUM:

- No status update

INSTALLATION:

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- No status update

ALIGNMENT:

- No status update

EES – I&C:

- The calorimeter controller is being worked on by Scott Windham. The PC104 is not functional but the rest of the chassis is. He is marking up the documentation to get it to match the as built.
- Need to get the SW for the calorimeter (probably Arne).
- John Musson is making measurements on the BPMs. Awaiting the comparison table.

EES – OPS:

- EES – DC: promise that PS work will start this week. Once repaired, we can swap out at a convenient time for the PS we need from Hall C.
- We have 1 polarity reversal switch in house. Need to verify that we will have on both (if not, fairly expensive and long lead item).

EES – SSG:

- No status update

TARGET/DUMP DESIGN ACTIVITIES:

- Can fit a viewer for the LC Dump. It will have a camera. Will use a 45° angled plate with a fluorescing spray coating.

PHYSICS

- Raster rate will be 30 Hz.
- Need AWP input and list of items that may be farmed out to collaborators.

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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	10/19/10	
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 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	
17	10/5/10	Get Accelerator Ops involved in reviewing the LC dump monitoring issues. New item 20.	T. Michalski	10/26/10	11/23/10
20	11/9/10	Get Accelerator Ops involved. Either Eric Forman, Yan Wang, or alternate.	T. Michalski	11/23/10	11/23/10
21	11/9/10	BPM performance table – M15, M20, electronics	O. Garza/D. Williams	TBD	
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	
25	11/23/10	Sort out power supplies for FZ magnets. Appears there is still some confusion.	T. Michalski / J.P. Chen	12/30/10	

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.