

# g2p/GEp Beam Transport Meeting Minutes

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**Attendees:** T. Michalski, P. Kjeldsen, R. Lauzé, A. Camsonne, Z. (Vick) Chen, L. Dillon-Townes, K. Allada, E. Folts, T. Delacruz, M. Ivanco, N. Wilson, M. Wehl, P. Degtiarenko, A. Gavalya

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

- Issue raised with potential changes to runs. This has been addressed and the issue is closed. There is a slight shift in energy on a couple runs, but will not change the orbits. The change was to get improved polarization.
- The SR has the same issue with reduced dwell time in the center. Penjia is looking into this.
- PS testing is delayed due to other obligations.
- Raised the issue of not forgetting about the AI magnet. Need to keep Ken in the loop.

## **STATUS:**

### **OPTICS:**

- Verify that orbits are finalized.

### **MAGNETS:**

- Nothing new to report

### **BEAM TRANSPORT:**

- Region 1 – nothing new to report
- Region 2 – nothing new to report
- Region 3 – FZ2 stand – ordered and should be here by end of June.
- Harps – due end of May. Drawings finishing up. Radiation study on fork material.
- Viewer – spring needed – ready for assembly – exercised cylinder.

### **RAD CON:**

- Waiting mode – final setup and target design. Alan raised the opportunity for a new neutron reduction material.

### **SOFTWARE:**

- Brian is making modification to the BPM control – after his vacation.

### **VACUUM:**

- No status update

### **INSTALLATION:**

- No status update

### **ALIGNMENT:**

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- No status update

## **EES – I&C:**

- Harp – control chassis 1<sup>st</sup> proto due end of May.

## **EES – DCP:**

- Scheduling testing. Will know better by week's end on how the PSs perform.

## **EES – SSG:**

- No status update

## **TARGET/DUMP DESIGN ACTIVITIES:**

- No status update

## **PHYSICS**

- No status update

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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	
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	
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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.