

# g2p/GEp Beam Transport Meeting Minutes

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**Attendees:** T. Michalski, E. Folts, C. Curtis, Z. (Vick) Chen, P. Degtiarenko, R. Lauzé, A. Dela Cruz, K. Slifer, M. Spata, K. Slifer, M. Weihl, D. Williams, S. Higgins, A. Camsonne, A. Freyberger

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

- LCW is going to be down for 2-3 weeks in September. Therefore, if we don't get the FZ PSs tested prior to ~Sept. 7, we can't do it until the end of the month.
- Arne reported that the Calorimeter is up and functional and the settings came back as planned. Will need 208V receptacle for the heater in order to fully test and calibrate it. Ed reported that they can get an extension cord immediately but Arne stated they would wait for the receptacle.
- Tim will set up a meeting to kick off the Return to Operations documentation updates (happened on Thursday).

## **STATUS:**

### **OPTICS:**

- Nothing new to report.

### **MAGNETS:**

- Nothing new to report.

### **BEAM TRANSPORT:**

- Region 1 – nothing new to report.
- Region 2 – nothing new to report.
- Region 3 – awaiting parts.
- Arms and girders – Design is complete. 3 procurements under way.
- Harps – all parts are here. Tony has one harp wired – update: one fork was damaged when assembling the harp. Replacement(s) have been ordered and will be here in 2 weeks.
- Viewer – nothing new to report.

### **RAD CON:**

- Nothing new to report.

### **SOFTWARE:**

- Needs the Harp Controller chassis to get this started. This is the long pole in the SW tent (and on the entire beamline effort).

### **VACUUM:**

- Awaiting Harp for upside down girder.

### **INSTALLATION:**

- Will get PS bunker built next week.

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## **ALIGNMENT:**

- FZ2 magnet initial alignment complete.
- Report that there appears to be a bit of binding in the process of elevating the stand with the magnet on it.
- Question raised about alignment/fiducialization of the harp. Tony states that it is the same as other harps with encoders where the encoder value is related to the harp wire position.

## **EES – I&C:**

- Still awaiting a few parts for the Harp Controller – have all the parts except the fuses and they should be in by week's end. Dave reported that due to Chad's availability, the system won't be available for SW until the end of August.
- BPM board is getting a final spin. Expect to have it complete by end of September. No schedule issues since the SW and FW are all but complete.
- Transport BPM modules are on track for installation and test by end of September.

## **EES – DCP:**

- Need to do wiring to magnets for Klixons.
- SW needs trim channel assignments for the corrector magnets.

## **EES – SSG:**

- Nothing new to report.

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

- Nothing to report.

## **PHYSICS**

- Nothing to report.

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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	TBD	
36	1/11/11	BPM testing with new electronics in North Linac – ½ done	J. Musson / D. Williams	???	
55	8/22/11	Channel assignments for trim magnets to SW.	Vick Chen	8/31/11	
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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	<del>M20 BPM's were decided to be used on the transport line exiting the FZ2.</del>
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	<del>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. Issue resolved without having to raise the target.</del>
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.