

g2p/GEp Beam Transport Meeting Minutes

Attendees: T. Michalski, E. Folts, C. Curtis, Z. (Vick) Chen, D. Williams, P. Kjeldsen, JP Chen, K. Allada, R. Wright, T. Michaelides, S. Wood, A. Camsonne, N. Wilson, R. Taylor, L.A. Dillon-Townes, M. Wehl, K. Slifer

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

- It was noted that the plastic shroud for the SR needs to be installed. The SR blower needs to be installed as well.
- There was a discussion on the position of the vacuum chambers within the FZ magnets. They had been set horizontal (verified with a level), but needed to be centered within the magnet steel. Question raised whether they needed to be surveyed at the flanges or if Installation Group's method was acceptable. It was determined that there is some clearance, so Installation Group's method is acceptable. Issue closed.
- It was noted that we have passed the 80% complete level in the schedule. Note that there is still quite a bit to get done.

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 – Upstream (viewer) girder received, arms due on Wednesday. The arm movement mechanism purchase req is awaiting Hall A signature. Butch to set up a meeting to detail the remaining installation/alignment sequence and process.

RAD CON:

- Nothing new to report.

SOFTWARE:

- Needs the Harp Controller chassis.
- Need to get the final BPM chassis as some of the SW settings will be based on the actual final hardware.
- Scott has received the Mitsubishi magnet control information and can move forward on that SW.

VACUUM:

- Finishing hookup of the upside down girder. Almost done – need to check to see if under vacuum yet.

INSTALLATION:

- SR fans installed and bunker built.

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ALIGNMENT:

- Did a preliminary alignment of the target platform.

EES – I&C:

- Harp Controller due to SW at the end of the week (last report has Monday, 10/3).
- BPM board is getting a final spin. Expect to have it complete by mid October. Testing 2 channel showed good isolation, now moving on to get 4 channel design complete and bought.
- Transport BPM modules are complete! Good Job Pete and EES Fab Shop and all who helped.

EES – DCP:

- OSP approved and FZs tested at 30% power – all went well.
- Arc flash calculations complete – need signs.
- Full power FZ test planned for Friday.
- FZ polarity switches are to be remotely controlled.

EES – SSG:

- Want to confirm LC dump interlocks – see Robin Wines for preliminary settings. Final will happen during commissioning.
- Same with target magnet interlocks – see Chris Keith.

TARGET/DUMP DESIGN ACTIVITIES:

- Target magnet quenched. Target group evaluating impact of the event. Will know more once it is warmed up and opened.

PHYSICS

- Review planned for 10/7 will be moved. Don't know new date yet.

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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	???	
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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. Issue resolved without having to raise the target.
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.