

g2p/GEp Beam Transport Meeting Minutes

Attendees: T. Michalski, P. Kjeldsen, E. Folts, B. Dillon-Townes, C. Curtis, Z. (Vick) Chen, JP Chen, P. Zhu, J. Heckman, P. Degtiarenko, R. Lauze, A. Camsonne, A. Dela Cruz, J. Zhang, K. Slifer

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

- The SR/Calorimeter have been installed and aligned. They are awaiting vacuum hookup. Ed is going to do this as filler work.
- The all metal valve can be installed downstream of the SR/Calorimeter if needed so that they can be valved off in order to perform the calorimeter calibration testing. Tim will check with Arne on his timing. Based on the timeline for the harp parts, it will probably be mid August before the upside down girder is complete. This is where the downstream valve will be located, if the all metal valve is not moved from its current design position. Update – Arne plans to start calibration of the calorimeter ~2nd week of August. Initial testing doesn't require vacuum. Getting it by the end of August will be OK.
- Pengjia to be involved in testing of the calorimeter to gain an understanding of its setup and operation for the experiment.
- John Heckman is taking care of modifying the mounting brackets for the upside down girder by 10mm.
- Power will be off in the hall for ~4 hours to wire in the 2nd PS for the septa.
- The FZ2 stand is installed and ready for alignment. Initial alignment will be performed on Wednesday. Butch stated that the stand must be grouted in order to verify the travel, due to stability. The FZ2 interface plate must be installed in order to measure the yaw on the stand/interface plate assembly. It will be installed for this but must be removed for modification to accept the arms/support mechanism for the articulating arm and viewer girders.
- We had a discussion on whether the arms would be mounted to the FZ2 magnet or if they would be installed later. Concern about their weight and accessibility (especially on the one side) versus potential to damage and support if already installed on the magnet. Butch, Ed, Installation need to come up with a plan.

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 – The FZ2 stand is installed and awaiting initial alignment.
- Arms and girders – Fundamental design complete. Performing structural analysis and incorporating all details. Will have 3 procurements. Drawings to be complete by 7/22. Stephanie will create an operating and alignment procedure.
- Harps – screws are here – expect prototype of the Tectron flag this week.
- Viewer – in the vacuum lab to test the flag pull-down.
- FZ2 stand controller needs to be wired so as to exercise the stand for alignment. Can't just wire it in as is – safety issue – Shirley has addressed this with the electricians and they will wire for quick disconnect at the same time.

RAD CON:

- Nothing new to report.

SOFTWARE:

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- Tony needs to provide viewer channel assignments – the chassis is already installed.

VACUUM:

- Modifying the mounting brackets for the upside down girder.

INSTALLATION:

- Will install the FZ1 magnet this week. Update – installed by Friday.

ALIGNMENT:

- FZ2 stand initial alignment.

EES – I&C:

- Pulled cables for 2 harps and viewer.
- Need 3U for harp chassis. There is space available in the existing racks.
- E-mail response from Omar re: impact of Qweak needs – no issue as they are committed to support g2p.
- Calorimeter controller has been installed.

EES – DCP:

- Polarity switch is the final activity to complete PS updates. Then wiring and testing magnets.

EES – SSG:

- Sent request for status update to Kelly – he is reviewing the dates on his schedule.

TARGET/DUMP DESIGN ACTIVITIES:

- No status update

PHYSICS

- Nothing to report.

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Action Items:

Action Item #	Date Added	Action Item	Responsible Individual	
11	9/28/10	Define the settings for chicane magnet current monitoring.	Y. Roblin	T
36	1/11/11	BPM testing with new electronics in North Linac – ½ done	J. Musson / D. Williams	1
37	2/1/11	Resolve open question on FZ magnet power supplies.	V. Chen	7/
54	7/12/11	Develop a plan for installing the FZ2 magnet and the arms.	L. Dillon-Townes, E. Folts, N. Wilson	9/
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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 wind 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 – consistent maximum gap. Re-opened during 9/21/10 meeting – look at using helium bag. Will use helium bag – issued
9/30/10	The requirement for BPM accuracy is 0.1mm – per discussion at BPM requirements meeting and subsequent 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 design and no need to reposition the chicane. Evaluation of 1.1 GeV beam through 2.2 GeV chicane position 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 at an 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. This was 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 BSY which requires rework.