

g2p/GEp Beam Transport Meeting Minutes

Attendees: T. Michalski, E. Folts, B. Dillon-Townes, C. Curtis, Z. (Vick) Chen, JP Chen, P. Zhu, N. Wilson, P. Degtiarenko, R. Lauzé, A. Camsonne, A. Dela Cruz, K. Slifer, H. Smith, S. Higgins, M. Spata, S. Wood

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

- The FZ PSs are now wired with AC power.
- The polarity switch is working and will be installed today. Update – installed and working!
- Fan assembly and PS box for SR will be worked on by Neil's crew; will work with Shirley.
- Butch mentioned that the Calorimeter cylinder should be exercised. I expect this to be part of the testing that Arne's grad student will perform.
- Need to finalize the plan for the FZ2 magnet and arm installation – affects overall scheduling if we need to wait for the arms to arrive.
- After the meeting, Mike Spata and Tim had a discussion on the commissioning plan for the beamline and experiment.

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 ran into some issues during alignment. Update – these have been addressed and the initial alignment is complete across the entire range of travel.
- Arms and girders – Design 98% complete. Performing structural analysis and incorporating all details. Will have 3 procurements. Drawings to be complete by 7/22. Update – drawings will be complete by 7/29 and Bruce will stay on 1 more week. Stephanie will create an operating and alignment procedure.
- Harps – all parts are here. Will get with Tony for wiring and final assembly.
- Viewer – in the vacuum lab to test the flag pull-down.

RAD CON:

- Performing source term calculations for target and new dump design for Jixie.

SOFTWARE:

- Received viewer channel assignments and SW development started.
- Scott asked about bi-polar control of the FZ PSs. It was explained that it was required for removing any residual field when running straight through.
- Question about controlling PSs for Septum Magnet – Simon and Howard will review the Septum PS control.

VACUUM:

- Update – Vacuum Group will do the vacuum work on the SR/Calorimeter – nearly complete as of Friday 7/22.

INSTALLATION:

- Will grout FZ2 stand by early next week, depending on alignment schedule. Update – should start Monday, 7/25.

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- Will install SR PS box and fans. Update – issue with PS box – exhibits lead contamination so no hot work. Need to discuss 7/26.

ALIGNMENT:

- FZ2 stand initial alignment. Update – completed 7/22 - .7mm total lateral runout over entire vertical motion.

EES – I&C:

- No report this week. Dave will update when he gets up to speed after returning from vacation.

EES – DCP:

- Polarity switch now complete.
- Need to do wiring to magnets for Klixons.

EES – SSG:

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

TARGET/DUMP DESIGN ACTIVITIES:

- Preliminary alignment complete for the stand for the target can and septum magnet.

PHYSICS

- Nothing to report.

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Action Items:

Action Item #	Date Added	Action Item	Responsible Individual	D
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, 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.