

g2p/GEp Beam Transport Meeting Minutes

Attendees: T. Michalski, E. Folts, C. Curtis, D. Williams, P. Kjeldsen, JP Chen, A. Camsonne, L. Dillon-Townes, P. Degtiarenko, P. Zhu, A. Gavalya, P. Mutton, G. Kharashvili, K. Slifer, K. Allada, J. Dahlberg

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

- Discussed next week's Safety and Readiness Review. It was stated that Yves would be unavailable, but a replacement would be in attendance.
- Over 90% complete. Focus on getting beamline done prior to target installation.
- SR installation is awaiting function generator to complete installation. Pengjia has this and JP will make sure he gets it to Bill Gunning.

STATUS:

OPTICS:

- Nothing new to report.

MAGNETS:

- Nothing new to report.

BEAM TRANSPORT:

- Outstanding parts due at the end of October.
- Butch to set up a meeting to orchestrate the installation, hook-up, and alignment of the arms and girders.
- Remaining tasks to prepare for start of physics is the viewer camera holder, spacer blocks (for quick, macro alignment at different energies), and getting final coordinates to Kelly Tremblay.
- An OSP is required for the chicane.

RAD CON:

- Concern about certain runs hit the tungsten block in a non-optimal fashion. Creates high radiation. Alan has agreed to modify the tungsten block to address the concern.

SOFTWARE:

- Still progressing on SW activities with expected completion at the middle of November.

VACUUM:

- Nothing new to report.

INSTALLATION:

- Will get lead reinstalled on the beampipe at the upstream side of the upside down girder. Awaiting parts.
- We have received the arm support brackets that get mounted to the ends of the FZ2 base. The mounting holes can be drilled.

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ALIGNMENT:

- Nothing new to report.

EES – I&C:

- Putting the final touches on the 4-channel BPM receiver board. Will need to expedite to get procured, built, and tested by the middle of November (new best information date).
- Vacuum diagnostics to be hooked up this week.

EES – DCP:

- Klixons are being added to the AI.

EES – SSG:

- No report.

TARGET/DUMP DESIGN ACTIVITIES:

- Question raised about magnetic material in proximity to the target magnet. The harp motor on the articulating arm is the only item that may be of concern. This has been passed along to Robin Wines.
- Target magnet was opened further and found to have significant issues. Update – not usable. Looking at alternatives.

PHYSICS

- ~~Review planned for 10/24.~~ Postponed as of 10/21/11.

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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.