g2p/GEp Beam Transport Meeting Minutes

Attendees: T. Michalski, E. Folts, C. Curtis, D. Williams, P. Kjeldsen, JP Chen, A. Camsonne, M. Weihl, J. Heckman, L. Dillon-Townes, P. Degtiarenko, P. Zhu

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

- The details of the meeting are now focused on the remaining tasks. We are over 90% complete with about a month to go, so we need to be deliberate on keeping with the dates. All float has been used up in the schedule. The beamline needs to keep on track to finish by 11/19 in order to be out of the way of the final target installation.

STATUS:

OPTICS:

- Nothing new to report.

MAGNETS:

- Nothing new to report.

BEAM TRANSPORT:

- Awaiting girders and arm motion mechanism. The girders are planned for delivery by 10/24 and the arm motion mechanism by 10/28.
- Goal to have the girders assembled, leak checked, and pre-aligned by 10/31 so that all items can be installed and vacuum hooked up the first week of November.
- 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.
- Butch and Tony to get the crystal installed on the viewer, then we can verify the flag position under vacuum.

RAD CON:

- Desires the latest information on the runs to determine the depth of the beam on the dump. Concern is that one run is not hitting the dump properly. Alan Gavalya is the best source for this information.

SOFTWARE:

- Sue has the whole harp controller setup and is able to move forward on SW.

VACUUM:

- Need to get the 2nd harp. (update – wire had to be replaced, harp is now in the vacuum lab)
- Have connected and pumped down vacuum on the Compton.

INSTALLATION:

- Nothing new to report. Will get lead reinstalled on the beampipe at the upstream side of the upside down girder.

ALIGNMENT:

- Expects to be busy the first week of November to get the final activities done in support of return to operations. The 2nd week of November looks the best for doing the 2B alignment and looking at the FZ2 magnet/girders for the different energies.

EES – I&C:

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

EES – DCP:

- No report – however, supposed to do full power test of FZs and associated PSs. (update – delayed due to other demands)

EES – SSG:

- No report.

TARGET/DUMP DESIGN ACTIVITIES:

- Nothing new to report.

PHYSICS

- Review planned for 10/24.

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.