

g2p/GEp Beam Transport Meeting Minutes

Attendees: T. Michalski, E. Folts, C. Curtis, Z. (Vick) Chen, R. Lauzé, A. Dela Cruz, K. Slifer, D. Williams, P. Kjeldsen, L. Dillon-Townes, JP Chen, K. Allada

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

- Minimal progress on the beamline in the hall. Neil's crew is busy buttoning up the accelerator arcs. Expect to get to the SR bunker later in the week. Same status as 2 weeks ago.
- FZ magnets also need LCW hooked up – Neil is aware of this.
- Due to sensitivity of the harp, it was decided to install the upside down girder without it. It will be installed later and can be aligned in place.

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 – awaiting parts.
- Arms and girders – Design is complete. 3 procurements under way. Latest due date is 10/8 with one procurement to go.
- Harps – first harp fiducialized. Expect the new fork for the 2nd harp during the week.
- Viewer – nothing new to report.

RAD CON:

- Nothing new to report.

SOFTWARE:

- Needs the Harp Controller chassis to get this started. This is the long pole in the SW tent (and on the entire beamline effort). Still an issue, but additional I&C resource assigned to move this along.

VACUUM:

- Nothing new to report.

INSTALLATION:

- Will get PS bunker built later in the week.
- Will install FZ LCW.

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- Will install upside down girder without the harp.

ALIGNMENT:

- Many 6MSD tasks (planned and unplanned) are starting to stack up, so let's get alignment activities done sooner than later. They will be busy starting 3rd week of September through mid to late October.
- Concern about things shifting to the right. FZ2 alignment will be time consuming – 1 week.

EES – I&C:

- Harp Controller (board and chassis) is complete. Chad is spending some time and Jim Kortze has been added to help. Working through issues in the FW. No definitive date yet.
- BPM board is getting a final spin. Expect to have it complete by end of September.
- Transport BPM modules are still on track for installation and test by end of September.

EES – DCP:

- Wiring to magnets for Klixons is complete.
- FZ magnet beacon boxes are complete and will be installed today.

EES – SSG:

- Nothing new to report.

TARGET/DUMP DESIGN ACTIVITIES:

- An OSP is required to run the magnets for the experiment.

PHYSICS

- Nothing to report.

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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 | ??? | |
| 55 | 8/22/11 | Channel assignments for trim magnets to SW. | Vick Chen | 8/31/11 | 8/23/11 |
| 56 | 9/6/11 | OSP required for operating FZ magnets. | Vick Chen | 9/30/11 | |
| 57 | | | | | |

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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. |