

g2p/GEp Beam Transport Meeting Minutes

Attendees: K. Allada, T. Michalski, P. Kjeldsen, E. Folts, R. Lauzé, A. Camsonne, D. Williams, E. Forman, A. Gavalya, T. Dela Cruz, JP Chen, Z. (Vick) Chen, L. Dillon-Townes, J. Heckman, H. Smith, J. Musson

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

- Awaiting details on the selection of signal generator(s) for the SR. Question raised with respect to spare(s). The Agilent being evaluated has 2 channels as well as modulation (all in 1).
- Action Item #37 – FZ PSs:
 - Can't get the PSs out of Hall C when the experiment is running. Currently, the 320A PS is being used for the Moeller. The 450A PS is being prepped for removal, but requires an adequate duration down time to remove. This is the one we really need.
 - The 450A PS has no reversal switch now. May need to buy one and then install it. Hall A has volunteered to buy it, so long as they get to keep it after the g2p run.
 - Need to know water needs for both PSs.
 - Input power – 480V 3 phase for both; 30A for FZ1's, 50A for FZ2's. Ed is planning to have 100A service and will use appropriate breakers.
 - Joe Beaufait stated he may have some spare MCM35 cable.
- Looking at getting collaborators to machine Transport module housings. Tim to speak with Ernest regarding need date and understand if the PO has been signed. Update – don't need until September, but PO has been signed.
- Hall A BCM Test – Amps repaired, John and Alexandre to develop test plan.

STATUS:

OPTICS:

- No status update

MAGNETS:

- Will look into returning BD magnets at the end of the experiment. Can Hall A get reimbursed? Tim to talk to Leigh Harwood.
- FZ magnets ready to move.

BEAM TRANSPORT:

- Region 1 support structure here; in parking lot.
- Region 2 – no action.
- Region 3 FZ1 stand design is in final review, to be ordered by end of Feb. FZ2 stand – designing, Shirley analyzing; Hall C stand – can get from Mark Jones.
- Harps – final review by Tony; make several flags as spares (bodies not needed for spares).
- Viewer – being reviewed by vendor.
- 20 degree run info being reviewed by Stephanie.

RAD CON:

g2p/GEp Beam Transport Meeting Minutes

- Calculating rates around dump when design is finalized.

SOFTWARE:

- Nothing new to report

VACUUM:

- Will leak check harps upon arrival, prior to installation and survey.

INSTALLATION:

- No status update

ALIGNMENT:

- Nothing to report. Need AWP input returned to Hall A.

EES – I&C:

- Nothing additional to what has been reported already.

EES – OPS:

- PS cabling – order via JP; collaborators will not buy.

EES – SSG:

- No status update

TARGET/DUMP DESIGN ACTIVITIES:

- 20 degree run info, need to size input window
- Reduce through hole on dump to 2 cm square

PHYSICS

- Alex to get test plan for BCM from Musson.

g2p/GEp Beam Transport Meeting Minutes

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	By 3/11	
16	10/5/10	Understand why there is a hole in the center of the rastered beam that comes from the faster raster/slow raster combination. Stated to be a waveform generator issue. Clarify this. If not HW, then probably SW?	C. Cuevas B. Gunning	TBD	
23	11/16/10	Verify polarity switch for FZ magnets. We have one spare in house if needed.	R. Lauzé	12/30/10	
24	11/23/10	Get FZ magnets from Physics Storage	T. Michalski / N. Wilson	3/1/11	
31	1/4/11	Procure, build, and test 14 Transport style BPM RF Modules	D. Williams / O. Garza	5/14/11	
35	1/4/11	BCM testing at low current, w/ helicity, in January.	J. Musson / O. Garza	Answer by 1/11/11	
36	1/11/11	BPM testing with new electronics and stripline BPM in North Linac	J. Musson / D. Willaims	TBD	
37	2/1/11	Resolve open question on FZ magnet power supplies.	V. Chen	2/15/11	
38	2/15/11	Ops needs written statement that SR won't be MCC controlled.	JP Chen	3/15/11	
39	2/15/11	Tolerance on FZ current.	Y. Roblin	TBD	
40	2/22/11	Need to know the water needs for the FZ magnet PSs	V. Chen	3/8/11	

g2p/GEp Beam Transport Meeting Minutes

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.