g2p/gep target meeting minutes

Attendees : J. P Chen, D. Crabb, C. Keith, Al Gavalya, Ed Folts, N. Kalantarians, D. Higinbotham, C. Soova, K. Allada, J. Zhang et al.

- 1. Al Gavalya : Alignment of target and magnet with respect to the track (that rotates)
 - 1. It was aligned earlier but need to re-fiducialize the magnet to the top plate (C. Keith)
 - 2. What is the tolerance for the alignment?
 - 3. Need to find previous tolerance number
- 2. Cryogenics for the target and magnet:
 - 1. They are separate system; same can as cryo target
 - 2. Need to bulid JT valves (C. Keith)
- 3. Target entrance/exit windows (Al Gavalya):
 - 1. Rectangular windows on both
 - 2. Entrance window: 10 mil (not final), exit window: 20mil
- 4. Chris Soova (Hall-A designer) showed some preliminary designs of the target platform assembly
 - Preliminary design can be found at : http://hallaweb.jlab.org/experiment/g2p/meetings/2010_09_16_G2p_Hall_A_Platform_Assy.pdf
- 5. Type of widows: No update from Dave Meekins yet
- 6. Magnet (D. Crabb):
 - 1. Estimated time for shipping: Nov 2010
- 7. Different targets in the setup(C. Keith):
 - 1. Two polarized cells
 - 2. One carbon cell
 - 3. Two different size holes in the ladder
 - 4. Empty target
 - 5. Can include all targets we want. The main constraints is the up/down motion (avoid hitting top/bottom)
 - 6. We need carbon foils (at least three) along the target length
- 8. Magnetic filed axis alignment with the beam (q-vector):
 - 1. How well do we know the alignment of the magnetic field with beam axis?
 - 2. This experiment will need very precise alignment (to a fraction of degree)

- 9. Radiation related issue:
 - 1. JP. Chen sent a run summary to Pavel (describing details of target/current and time that we plan to run) for calculation of radiation dose

Meeting with FEL personnel regarding target irradiation:

- 1. Decided to put the setup in the energy recovery dump
- 2. Use raster (its about 10cm at the dump)
- 3. Either raster the entire length of the target or rotate target to get uniform irradiation
- 4. Will use 10uA current
- 5. Target size 2cm x 6cm solid NH3
- 6. Make sure there are no ODH issues (mainly due to Argon)
- 7. Find maximum size raster FEL can provide
 - 1. No problem providing 2 inch raster
- 8. Setup viewer camera on the target
- 9. Time needed: A total of 2 weeks
- 10. Design items: A new dewar and new windows
- 11. Run can be performed in March 2011 (realistic estimate)