

UITC meeting minutes

2/17/2014

- 1) Poelker distributes first "to do" list.
- 2) We discuss budget, and Poelker suggests that only individuals outside Accelerator Division charge labor to the UITC charge code. This seemed fine to "workers" but as follow up, Fulvia is not happy with this approach and suggests Lab Management expects members of Accelerator Division (especially Source Group) to charge labor to this project too. So Poelker will review labor estimate, identify FY14 milestones and assign labor to some Source Group members. With total time charged not to exceed 3.5 FTE in FY14. And since there are only 7 months remaining in FY14, we can imagine ~ 6 people charging full time to the project, starting now.
- 3) Repeating: must identify FY14 milestones, who will achieve the milestones (to estimate labor charges), and what procurements will we make in FY14? Do the same for FY15.
- 4) Initial focus: gun and beamline to the front face of ¼ CM, infrastructure work by Facilities (knee wall removal, move the electric supply, new cave construction, concrete doors, hole in wall), install HPA, klystrons and racks above cave. Can Kellner build the new cave for us in FY14? This is scheduled for FY15 in Hari's plan but of course, it would be nice to have it happen sooner.
- 5) Purchase gun chamber and insulators, 450kV/3mA Glassman HV supply and SF6 tank.
- 6) Work with designer to layout beamline from gun to ¼ CM (meeting with T. Michalski on Feb 20)
- 7) Work with modeler to verify functionality of this short front end (can this be Reza?)
- 8) SRF to move ¼ CM into cave and position on stands (SRF ready to move to cave "today")
- 9) Create a useful mechanical room in Jim's old office
- 10) Outfit the control room with tables and computers.
- 11) Build the drive lasers in laser clean room (Shukui, can you start building the lasers? one at 532nm and one at 780nm)
- 12) Evelyn to coordinate clean up of Cave roof space: goal to install HPA, klystrons and electronics racks before the end of FY14. But we need to find the HPA and klystrons and racks....
- 13) Meet with Yasky and Facilities on Feb 19 to discuss scope of work
- 14) Joe mentioned we could build a simple Compton transmission polarimeter at 5 MeV. Longitudinal polarization required, so we won't need a 350kV Wien filter. Also mentions that we likely won't need counterwound magnets because our beamline is straight-ahead, and the chicane at HDIce will be symmetric
- 15) Will we ever have a 5 MeV mott at the ITC? It would require a 350kV Wien filter....
- 16) It would be prudent to do a test at CEBAF, with chopper OFF: how does the beam look down stream of the ¼ CM?

Next week meeting agenda:

- 1) Discuss the gun design, are we interested in making modifications to the gun?
 - a. Marcy to provide vacuum critique, NEG strips vs NEG modules

- b. Carlos will provide a poisson field map of gun with spherical electrode. Perhaps recommend shape of focusing electrode insert, recommend cathode/anode gap to maintain field strength $< 12 \text{ MV/m}$ at 500kV
 - c. Installing a Marchick-style electrode and manipulator seems beyond FY14 scope. How about moveable anode?
- 2) Shukui to describe the laser on the ceiling of GTS. Qswitched laser for nC bunch generation. For a CsK2Sb photocathode, we can also use 405nm DC laser, DC Verdi laser and gain switched diode laser system with fiber amp and freq. doubler.
- 3) In two weeks, Joe to provide assessment of single wound U of I magnets, and CEBAF counter wound magnets. Will these magnets suffice or do we need to purchase bigger solenoids, like the ones in the Two-Wien Spin Flipper? Joe to discuss the 15 degree bend magnet, Wien filter magnet and spectrometer bend magnet.
- 4) In three weeks: Reza to describe the beam simulation results
- 5) GTS beamline design and discussion....