THE NEW USER AREA BEAMLINE

"fast" kicker experiment (mock-up)

OTR, OTRI, test of new radiators (mica)
EO sampling preparation

Optical table

P. Piot, April 21st 2005
WORK IN THE CAVE

1. Remove UCLA experiment [Wade et al.]
2. Install optical table and new beam line [Wade et al.]
3. Cable + control for beam diagnostics
   1. Screens: (mirror versus mica for OTR) [Gregory Kazakevich]
   2. BPMs: delay line, splitters and heliax from cave to BPM rack [Jamie S]
   3. Controls for screen (air cylinder + video cable + IRM) [Jamie S]
   5. Provide control/cable for kicker exp. components [Jamie S/Tug A.]
4. Magnets: [Jamie S]
   1. Get two LINAC-style dipole pairs
   2. Provide proper cabling/control for 4 quadrupoles (during UIUC experiment quadrupoles are not in the beamline) --already there?
   3. Provide proper cabling/control for 1 chicane-type dipole used as spectrometer (I=10 A)
5. Safety/Shielding for the new beamline [Garry] –need interlock?
6. Interlock [Chuck Worel et al.]
   1. South cave – can we do work in parallel with installation work?
   2. North cave – does this affect south cave run?
7. DESY collaboration would like to remotely run the 9-cell for FPGA-based LLRF test [Tim Koeth] – for this need interlock operational
WORK OUTSIDE THE CAVE

1. Photocathode drive laser upgrade [Jianliang/Rodion]
   1. New laser oscillator will be tested today
   2. Laser room we be reorganized next week
   3. Install oscillator in new beamline
   4. Commission upgraded laser (independent of S cave until UV production)

2. Exchange of gun klystron [John Reid + Wade et al.]
   1. Measure current klystron properties
   2. Replace klystron with new one and process + measure new klystron performance – all tests can be done by running in dummy load how does the interlock work then? [question for Chuck/Garry]

3. Measurement of skew quadrupoles magnets
   1. Procedure for measurement [Philippe]
   2. Reserve slot and coordinate measurement with tech division [Jamie]

4. Upgrade digital camera system [Philippe with help of e-cooling people]

5. BPM system
   1. Software changes (add BPM’s include nonlinearity of BPMs) [somebody from UIUC + Philippe]
   2. test spare electronic we have [somebody from UIUC + Philippe]

6. Install time-of-flight electronic [Tim Koeth]
WORK NOT DIRECTLY RELATED TO A0
BUT WITH IMPACT ON SHUTDOWN

1. N. Cave SRF test [Leo et al.]
   1. Today scheduled test but then how often?

2. N. Cave cold gun test [Ray Fliller]
   1. Need gun klystron + north cave interlock
   2. What are the plans for running?

3. 9-cell LLRF test [Tim Koeth]
   1. Need south cave interlock OK
   2. Probably will run early in mornings; not anticipated before the vacuum work + interlock is done in the cave.

No time required for next week
SCHEDULE

- **Week of April 25**
  - Do vacuum work + cabling in S. cave
  - Interlock work for S. and N. cave (need the week)
  - Only oscillator work no amplification (because of interlock work + new oscillator is IIIb class)
  - Start working on klystron replacement

- **Week of May 2**
  - Continue vacuum work in cave
  - When needed provide interlocked cave for 9-cell test (need interlock OK on 200 kW do not need 3 MW permit)
  - Continue klystron replacement

- **Week of May 9**
  - more vacuum work in cave needed?
  - UV in cave

- **Week of May 16**
  - First beam?
  - TOF commissioning?