

Notes from April 21, 2004 Accelerator Controls and Beam Diagnostics coordination meeting, where we discussed prioritizing the controls effort to match the hardware and commissioning plans for the injector and linac.

Installation and commissioning milestones and dates:

RF waveguide installation summer linac downtime '05

Laser safety needed by Jan. '06 upstairs, March '06 downstairs

Injector PPS needed by March '06

Laser controls

- Time early for laser delivery is Jan '06

- Laser requires triggers and new oscillator

- 40 stepper motors etc required by Sept '06

- UV on cathode Nov. '06 (as early as March '06)

Vacuum controls – new control system with interlocks
gun delivered Jan. '06

RF conditioning required April '06

- Requires solenoid on and GTL diagnostics

- faraday cup to measure dark current

- RF probes, TC's

- Condition L0A/B

- Needs epics RF monitoring but not full controls

e- beam gun spectrometer only May '06

- dipole magnet

- prof monitor

MPS – device protection, May '06

- vacuum valves in trips laser

- thermal interlocks

RF controls in epics August '06

- Phase shifters, attenuators etc

Beam transport devices and diagnostics

- e- beam August '06

Basic diagnostics

- BPMS

- Prof monitors as above

emittance measurements, slice emittance bunch length etc.

- still under discussion

Inj spectrometer, DL1 & BC1 to be installed in '06 shutdown

BC2 to be installed in '06 shutdown

Note: Development IOC system is needed for hardware commissioning, but is not yet budgeted.