

## LEReC: Gun test commissioning planning meeting

### Notices

2016-08-12 (Note 1).

#### Kick-off meeting.

1. Gun Test beam commissioning is schedule to start in January 2017.
  - a. All equipment should be installed and tested before.
  - b. Current plan is to receive the exemption for 25 kWatt gun test (gun voltage less then 500kV).My understanding that shielding will be in place all time during beam tests for gun test commissioning. (Needs clarification)
  - c. We will not call ARR for only gun test. (Full LEReC facility will required ARR some later)
  - d. The system experts will report that they system is ready for beam commissioning.
  - e. Without ARR (IRR) we will decide by our self that level of systems readiness is acceptable to start commissioning (low power < 10Watts).
  - f. We should make sure that laser average power is limited (use mechanical shatter to limit duty cycle or use lower power laser).
  - g. We will review results of low power tests before to go for higher power.
  - h. The list of acceptable level of each system readiness should be developed in discussing with system experts. As an example cathode QE>1%, gun conditioned upto 500kV with <1uA dark current and others.
  - i. The process of tracking of readiness should be developed. ATS system could be used for this. Needs help and more clarification how to use it.
2. DC gun conditioning
  - a. DC gun test exempt will be used for gun conditioning (needs all approvals by October 18, 2016).
  - b. The gun conditioning is scheduled to start in October, 18 2016.
  - c. Before conditioning at BNL this gun will be preconditioned at Cornell starting next week.
  - d. Gun conditioning will perform with dummy puck inserted. Puck surface temperature monitoring could be very useful for cathode development team. It's not clear if it's possible.
  - e. Current plan is to conditioning gun during nights and weekends. In daytime continue equipment installation and testing.
  - f. We should make sure that laser is not reaching the cathode during gun conditioning.
  - g. Work planning is essential. Q: Who is doing that?
  - h. There is a good chance that normal configuration shielding blocks will not be in place. This test is required special RSC review and approval beyond exemption (before test) In order to receive RSC approval we will need well documented radiation survey data from Cornell.
  - i. Q: who will make sure that we get enough information during conditioning at Cornell for preparation Gun conditioning at BNL site?
  - j. When these data is available RSC could review and propose the shielding requirement.