Poelker notes from UITF Safety Review

May 10, 2016

How will people know we are running keV beam or MeV beam? Good question

Important to start fleshing out specific design for the PSS BCM. Henry R. recommends using as much CEBAF-tested equipment as possible, limiting the amount of new hardware that must be reviewed for reliability. Bob concurred, this was a good suggestion. Bob also suggested a PSS BCM design review be scheduled soon (Omar, Trent, Henry, Matt, others?)

Probably a good idea to ask Facilities for a Life Safety Assessment (Christine Snetter)

A Rapid Access System is not needed because our beam energy is low and we are not likely to activate anything. Also, it would be expensive to build and labor resources are scarce.

Yes, we will have Crash Button, it will live inside the control room, part of the PSS. Yes, we will have beacons at both doors of the cave, indicating the machine state (magenta beacon). It is reasonable to place a sign near the beacon explaining what the beacon means.

Will we have beacons at the electronics racks above the Cave? Indicating that klystrons are powered?, gun HV ON? Probably a good idea.

Do we want mechanical locks on the doors? Particularly the new screen door at the labyrinth. This could serve a valuable purpose, for example during a power outage when there might be heightened ODH risk. A lock could keep people out of the cave.

Verify that Vashek considered 100nA average current at 10 MeV delivered to the elevated beamline, and stopping just upstream of the HDIce target.

WE must remember to fill the trenches with lead shot, especially the trenches leading to the control room

Need a definitive statement: do we exclude access to the top of Cave1 (the electronics racks) when make keV beam, MeV beam? I believe the definitive statement was Yes, we exclude access to top of Cave1, because 30” of concrete is insufficient shielding for X% loss, Y% loss.

Assuming the top of Cave is excluded during beam delivery, is it sufficient to simply add a chain across the stairway, at the bottom of the stair. e.g., with the chain suspended across the stair as part of a sweep procedure?

During commissioning, we will make radiation measurements while intentionally steering and losing beam. This will help us evaluate assumptions like, “1% continuous loss”. Vashek notes that our 10 BLMs will be very useful during our x-ray radiation assessment, in addition to monitoring provided by RadCon.

We must agree upon a current threshold for the PSS BCM to trip OFF beam. Vashek suggested 200nA is a good trip setpoint, for allowed operation at 100nA

Question: do BCMs read average current while in Tune Mode? Or do they read peak current, 8uA in Tune Mode? In which case we will trip OFF beam whenever we go to Tune Mode. Must ask Trent

There will be only one LOSP for the laser room and the cave

Steve Benson recommends tallying up the Voltage and Current values of all of our power supplies, which would be part of our general hazard assessment.