SANE Short Term Run Plan –Tue. 2/10 eve – Wed. 2/11 owl/day

RUN PLAN *(SAVE previous run plans in the Run Plans binder)*

Tue. 2/10 owl to Wed. 2/11 day. Opportunistic accesses: when switching targets, during anneals (check with the target experts) or to delay or move up anneal times to avoid annealing between midnight and 6:00 AM. Keep < 30 min. long if possible.

BEAM (for production runs):

Current : **85 nA**

- **check that the SR is ON** and configured with *New Settings for 5.9 GeV Beam* as explained in hclog entry **175431** **(20 mm diameter)** spiral: 1.6 V; circles 1 & 2: 1.5 V
- **fast raster 1 x 1 mm,**
  beam at **x = -0.5, y = 0.0 mm on BPM 3H00A;**
  x = -1.0, y = 0.5 mm on BPM 3H00B (SEE BELOW)
- Enter all required variables in the on-line Run Sheets, including the target polarization at the beginning and end of each run

DATA:

- HMS: should be set at central momentum to 3.1 GeV/c, 15.4°, electrons (Q^2 = 1.3 GeV^2, W = 2.2 GeV) for packing fraction.

- Take data with the TOP target with POSITIVE polarization. 85 nA.

- Take 1 h long runs. Continue with 1 h runs until around 21:00 h.

ANNEAL

1. Target experts will conduct the anneal.

2. Put the C target in beam to help boiling off He in the nose. Ask for **100 nA.**
IMPORTANT: Take a ½ h long run *AFTER the nose is empty. Watch the HMS or BigCal rates: the nose will be empty when the rates stop changing after dropping,*

start a new run then.

3. Put the cross hairs target in the beam, **ask for 100 nA** take a short (10 min) run with the nose empty. Run no. _____

4. Put the 8 mm hole in the beam, **ask for 85 nA** (use the encoder setting for the 10 mm hole and move the target up 10 mm). Take a short run (~ 10 min) with the 8 mm hole with the nose empty Run no. _____

6. While the anneal is being done, analyze the cross hairs and 8mm hole runs to check the raster size and the target and beam centering. Compare the hole and raster sizes.

5. Target experts will finish the anneal.

6. Once the anneal is complete and there is LHe in the nose, take a ½ h run with the EMPTY (= cross hairs) target(*enter Cross Hairs + He in run sheet*), and another ½ h run on C+He, both at 100 nA.

- Check that the previous beam positions **x = -0.5, y = 0.0 mm on BPM 3H00A; x = -1.0, y = 0.5 mm on BPM 3H00B** agree with the cross hairs ADC plot of the run taken before the anneal (see above). Post your conclusions on the hclog.

- Take data with the BOTTOM target with NEGATIVE polarization. **85 nA.** Take 1 h long runs. Continue with 1 h runs until about 3:30 AM

- Take data with the TOP target with NEGATIVE polarization. 85 nA. until beam goes off for beam studies.
- Target experts will do TE calibrations during beam studies

- A Moller calibration will be done after beam studies. Put empty target in beam to do the Moller measurement
- Before asking for beam **turn OFF the slow raster** using the module labeled SR SWITCH in rack 3HC014 (middle left side) in the electronics room. Tell MCC that the SR is off, they need to know for their FSD limits.
- Keep the beam current **below 200 nA**
- after the Moller **remember to turn the SR back ON!** Tell MCC the SR is back on

- An anneal will be done in part in parallel with the Moller calibration (empty target in beam to boil Lhe off). Anneal will be finished after Moller is done.