

SANE Short Term Run Plan –Sun. 2/15 eve – Mon. 2/16 owl/day

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

Sun. 2/15 eve to Mon. 2/16 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 : start with **85 nA**

- check that the **SR is ON** and configured with *New Settings for 5.9 GeV Beam* as explained in hlog entry **175618 (20 mm dia.)** spiral: 1.37 V; circles 1 & 2: 1.28 V
- **fast raster 1 x 1 mm**
beam at **x = -0.0, y = -0.66 mm on BPM 3H00A;**
x = -0.5, y = -0.3 mm on BPM 3H00B (per hlog 175661)
- 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 4.17 GeV/c, 22°, protons for *ep* elastics.

- Check target and beam centering with cross hairs target. Take a short run (<10 min) and look at the slow raster ADC plot. The cross hairs should look reasonably centered (within 1 mm) in the vertical and horizontal, and the rim of the cup should not be visible at the edges of the raster. Use target encoder values of hlog **175960**.
- If beam centering is needed, follow run plan for 2/13/09, in the binder and on the wiki. Don't steer the beam more than +/- 0.5 mm from above positions.
- Take data with the BOTTOM target with **NEGATIVE** polarization. Watch the polarization rate of increase. Wait up to 30 min. from the start of polarizing:
- If it takes (or took) *more than 30 min to get to 50%*, it probably is over annealed. Ask for **100 nA** and start taking data, continue for up to 4 h total time.
- If the polarization rises *above 60% in ≤ 30 min*, ask for **85 nA** when P ~70%, take ~1 h long runs. Continue with 1 h runs until the polarization is at ~ 0.7 of its maximum value. Watch the rate of polarization decay: if it exceeds more than ~ 5%/h (absolute) stay at 85 nA. After the polarization drops below ~ 65%, ask for 95 nA.
- Take data with the TOP target with **NEGATIVE** polarization, ask for **85 nA** when P ~ 70%, until polarization is at ~ 0.7 of its maximum value. Extend data taking as needed to schedule the anneal *not earlier* than 7:30 AM Mon. 2/16.

ANNEAL

Take short (less than 130 min total time) TE calibrations for both targets before 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 **150 nA**. The HMS is set for protons so it is not necessary to take HMS data.
3. Target experts will finish the anneal. Continue with NH3 production data. No need to take EMPTY or C+He runs.