

SANE Short Term Run Plan –Mon. 2/23 eve – Tue. 2/24 owl/day

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

Mon. 2/23 eve to Tue. 2/24 owl/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 to 110 nA**, as needed depending on the response of the polarization.

- **check that the SR is ON** and configured with *New Settings for 5.9 GeV Beam* as explained in hclog entry **175618 (20 mm dia.)** Spiral: 1.37 V; circles 1 & 2: 1.28 V
If needed, adjust Slow Raster to have 20 mm diameter (hclog 177048)
- **fast raster 1 x 1 mm**
beam at $x = -1.5$, $y = -0.66$ mm on BPM 3H00A;
 $x = -2.1$, $y = -0.3$ mm on BPM 3H00B
- 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.

- *Make sure all detectors are ON, LED's off and retracted, prescale factors and trigger type correct, etc. before starting*

- 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 *more than 30 min to get to 50%*, it may be *over annealed*, it probably can/will improve with beam. Ask for **110 nA** and start taking data.
 - If the polarization increases with beam continue at 110 nA for up to one hour after the polarization starts dropping, then take data at **95 nA** until the polarization drops below 60%.
 - If the polarization does not increase after 2 h of beam move to the TOP target.
- If the polarization rises *above 60% in ≤ 30 min*, anneal was OK. Ask for **95 nA**, take ~1 h long runs. Continue with 1 h runs until the polarization is at ~ 0.75 of its maximum value.
- If the polarization rises quickly but it does not get significantly above 70%, and it starts dropping as soon as beam is turned on, it probably is *under annealed*: take data at **85 nA**. When the polarization is around 62% take data at 95 nA. Anneal when the

polarization drops below 60%.

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**. Take data until 15 min. after the nose is empty of He.
3. Target experts will finish the anneal.
4. Continue with NH₃ production data.