Run Plan for PVDIS Pion Runs during E05-102

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contact: Xiaochao Zheng, Ramesh Subedi, Robert Michaels

Goal: Take runs on the RHRS at a kinematics where pion rate is high and pi/e ratio is low. These data will be used to check the pion triggers and the PID performance (pion rejection) of the PVDIS DAQ.

When: Either of the following:

1. Before pass change (around June 9), starting after mid-night and ends when MCC stops delivering beam for the pass change; Or
2. Opportunistically, provided it does not interfere with the current running experiment;
3. Call Xiaochao or Ramesh (if between 8am and 6pm), or page Ramesh (if between 6pm and 8am), inform when the test run will likely happen, so we can be there to check the data.

How:

1. ***The Left HRS and BigBite should take regular production data throughout this test period; Follow synchronization procedure of the left and the right DAQ all the time.***
2. ***The target should ideally be polarized 3He, but other targets are also acceptable.***
3. Change RHRS momentum to 700 MeV/c; The dipole probably takes the longest to settle.
4. As soon as the RHRS momentum (dipole) drops below 800 or 900MeV/c, take separate runs on: left and right HRS; AND take a separate HAPPEX run; The prescales should be:
   A) Keep prescales on the LHRS unchanged;
   B) For RHRS, write down the current prescales. Then set PS6=10, set PS1=1, take 5 Hz on T3, T4, T5, and set all others to 65535.
   C) The expected T1 rate is a few hundred Hz.
   D) Make a note in the End-of-Run entry or a separate HALOG entry on how much the right dipole p0 changes during this run;
5. When the RHRS dipole p0 is fluctuating within 600 and 800 MeV/c, take separate runs on: left and right HRS; AND take a separate HAPPEX run; Follow the same prescaling rules as above.
6. Stay at this setting until pass change starts (should be at least 1 hour with stable momentum setting). PVDIS crew should do online replay to make sure data are good.
7. Start setting the RHRS momentum to where it should be for the current experiment. Set prescales on the RHRS to where they were.

What to do if there is a magnet trip on RHRS:

1. Try to fix it, then set the RHRS p0 back to 700 MeV/c.
2. Start taking data as soon as RHRS dipole p0 is above 500 MeV/c, follow step 4 above;
3. When dipole p0 is fluctuating between 600 and 800 MeV/c, follow step 5 above.
4. Continue with steps 6 and 7 above.