

Notes from MI/RR Meeting - 10 Feb 2003 by Bruce Brown Notes on 11 Feb 2003

Recycler Study Plan 2/10/2003 ~ 2/14/2003 - Martin Hu

The following items must be addressed to be ready for pbar beam.

1. Longitudinal feedback study.
2. Diagnostics:
 1. Ring BPM timing (1/2 shift), occasional 2D, stored beam.
 2. Transfer line BPM timing (1/2 shift).
 3. Transfer line bumps (1/2 shift).
 4. MI 2.5 Hz BLT timing and closure (2 hrs).
3. Momentum aperture measurement.
4. Admittance measurements.
5. Aperture scan and centering at tight locations and new devices if 3. and 4. show degradation (3 ~ 6 shifts).
6. Chromaticity measurement and adjustment (1/2 shift).
7. Tune adjustment and de-coupling (1/2 shift).
8. Proton store lifetime measurement (1 shift).
9. Round-trip emittance measurement (MI->RR->MI) with FW.
10. Ready for pbar.

We will try to cover the shifts available this week.

Comments on Progress

It was noted that there were 8 magnets (6 in ring) which had stainless steel heater tape removed. They were removed from the ring and reinstalled. With beam back into the Recycler, it is observed that the horizontal tune is significantly different ($\Delta Q_x \sim 0.01$). As a result we should expect that the tune trombone will need to run at a different setting. We should observe that the beta and alpha matching conditions for the end of the trombone need to be determined and adjusted in the tune trombone program in order to match the new conditions. The AA timing marker for the RR has been changed. The correct procedure for adjustments to injection from the MI must be observed to avoid unnecessary effects on other timing (such as BPM's). One adjusts the MI 2.6 MHz alignment wrt the Recycler AA marker using I6 (state 23 or 25 depending upon particle type.) The sequencer has new routines for starting up from an off state.