

LHC Beam Operation Committee

Notes from the meeting held on 8th November 2011

List of Participants

1. Status and Planning of Ion Commissioning (John Jowett)

J. Jowett presented the status of the ion commissioning. The commission started on Saturday, 05.11.2011. At injection, losses from the bucket were observed and are expected to be due to **intra-beam-scattering (IBS)** which is expected to be a main limitation for the 2011 ion run. **Ions were ramped and squeezed in less than 3 hours after first injections**, followed by 1 hour of collisions in ADJUST mode. Later on collimator setup, loss maps and asynchronous dump test were done; the preliminary analysis showed no unconformities.

An unconventional behavior of the movement control of the ALFA roman pots (RPs) was observed: Initially the RPs did not move on request, later they moved inwards when requested to move out and had to be stopped by the emergency switch before reaching the dump limit.

The remaining setup tasks include: transverse damper setup, collimator ramp functions (offline), BGI improvements (offline), TI8 steering, LDM setup, TCT setup and recovery from the technical stop. After that, a few short physics fills with 170 bunches are planned before increasing the intensity to 358 bunches. For Wednesday, 16.11.2011 a p-pb test is foreseen. About two weeks later, the ALICE spectrometer dipole polarity will be reversed.

Discussion:

G. Arduini informed that **left of TCTVB.4L2 a ring which holds the RF fingers together was found to be loose** and might be the reason for the observed aperture limitation. B. Holzer asked if the observed aperture limitation constrains the 1m beta* operation of ALICE. J. Wenninger pointed out that 1m beta* with an external crossing angle of 80 μ rad is nevertheless feasible.

J. Wenninger pointed out that he will suggest to the rMPP the procedure of having a few fills with 170 bunches before increasing the intensity to 358 bunches. He also reminded that the preparation time for the 200ns ion operation in the SPS should be taken into account.

P. Baudrenghien asked if the radial trim was on for the ion fills. J. Wenninger confirmed that this was the case, but the trims were at injection very small (below 10⁻⁵ dp/p). Thus, it is not necessary for p-pb operation.

M. Ferro-Luzzi reminded that CMS requests about 15 proton splash-events, which should be scheduled around the p-pb run.

V. Kain informed that there are several mm injection oscillations of beam 2. Presumably the MKI kicker delay needs to be adjusted in order to inject on the flat part of the kicker waveform.

2. AOB

J. Wenninger informed that some tests for the orbit feedback are needed for tight collimator operation. This should be done after the squeeze of a test ramp and will take about 2 hours.

A summary by P. Charrue about the planned changes by BE-CO during technical stop #5 can be found [here](#).

Upcoming meetings:

Tuesday, 15th November: next LBOC meeting (15:30 in 874-1-011).

Monday, 12th December – Wednesday, 14th December: Evian Workshop 2011.