

- B. Todd looked more carefully at the SMP V2 (present SMP) structure and concluded that it would not be easy to 'just update' the SBF table.
 - Code to be recompiled.
 - Test bench for SMP V2 transformed for SMP V3 → not possible to perform extensive lab testing.
- Based on the previous point, combined with the move of the TS to this week (no more stop between p and ions), we decided (RS+JW) not to touch the SMP system and leave the SBF as it is for ions.
 - Very low risk (surface damage).
 - We will rely on OP discipline to enforce a maximum of 2 ion bunches for all commissioning steps.



SBF protons – the future

- We are more or less regularly injecting beams with emittances of roughly half the nominal value ($\sim 2 \text{ um}$ instead of 3.5 um).
- It is likely that this trend will continue next year with 50 ns beams.
- The SBF is based on a beam of nominal emittance, we should therefore foresee to lower the SBF limit by up to a factor 2!
- Since injected beams are probably the most critical, a possible proposal would be to clip the SBF to $5E11$, leaving the energy dependence untouched.
 - We keep the margins to operate at 3.5 TeV, even if the risk is somewhat higher.
 - We know that a beam at the limit of the SBF is not necessarily safe under all conditions.

- For the last 2 protons weeks we will first continue the intensity progression in steps of ~ 50 b:
 - One fill with 312b to get back into business after the TS.
 - Then 3 fills at 360 bunches, followed by 400+ bunches.
- The 50 ns will begin with a fill of 108 bunches (injection of 24 bunches based on two 12 bunch PS batches to the SPS).
- We will then increase in steps of ~ 100 bunches while observing the situation:
 - BI, vacuum, lifetimes (beam-beam), RF etc

- For ALICE the TCTVs in IR2 will be opened exceptionally during stable beams to avoid intercepting the spectator neutrons.
 - No single turn failure in V plane.
 - Very good coverage of powering failures.
 - As a compensating measure, the BLM thresholds of the IR2 triplets will be lowered by another factor 3-5 → monitor factor of 0.02 (now 0.1).
- We agreed that TOTEM could perform a special low intensity run:
 - Vertical TCPs set to 4-4.5 sigma.
 - Vertical RPs to to TCP+2 sigma, i.e. 6-6.5 sigma.
 - Horizontal RPs > 16 sigma.
 - 4 bunches of 7-8E10, 1 bunch of 1E10.
 - A document specifying the exact conditions is in preparation.



Changes for 2011

- **SMP SPS:**
 - Extraction master BIC LSS6 (beam1) changes to accommodate HIRADMAT.
 - (small) changes to the SPS energy flags.
- **SMP LHC:**
 - SMP V3.
 - SBF tables (extra ion table, super relaxed table)
 - BPF logic (new BPM input)
 - Redundancy
- **New BPF system based on BPMs**

- PIC:
 - Electronics for PIC AR8 to be exchanged – part of HWC.
 - PIC-BIC configuration to revise?
- LBDS:
 - MSD calibration curve update → BETS setup, energy tracking tests and test dumps at various energies – would have been done anyhow.
 - MKD generators.
- TCDQ:
 - Expect some changes in controls SW.
- ATLAS ALFA detector ???
 - Commissioning of roman pot interlocks?