

End Week 48 (December 4th 2011) – Status of Accelerators

ions only in the complex. In general good performance with happy users in NA61 and LHC.

TI (Jesper Nielsen)

Here's the link to last weeks summary for TI:

<http://wikis/display/TIOP/2011/12/05/TI+summary+week+48%2C+2011>

Fortunately a quiet weekend, despite the bad weather!

LEIR (Sergio Pasinelli)

Several perturbations from the Linac3 this week.

Friday afternoon. Losing the beam at the capture. The RF specialists have been called and after investigation they have found the PU's racks OFF. The PU specialist has been called and he has done a reset on the main breaker of the racks and on the DSC. The PU specialist has no idea why the racks has been switched OFF !

During the weekend: Several optimizations on the injection and on the Ecooling were done by the SPS crew. There is a problem with the PU's in the ETL/ETP lines. The signals on OASIS are missing.

PS (Alexej Grudiev)

Very smooth running providing nominal ion beams with intermediate intensity to the LHC and for the north area (via SPS of course). Several MD has been performed in parallel to continuous adjustments of the operational beams.

The only down time to report was on Wednesday morning. 1 hour beam stop for an access to repair 10 MHz cavity C76. Final amplifier has been exchanged.

SPS (Karel Cornelis)

SPS continued the week with Pb-ion operation for fixed target and LHC filling. On Tuesday the FT energy was changed from 200 GeV to 106.5 GeV (proton equivalent) on request of NA61. The operation went very smoothly, partly because the LHC was off during that time. It took only half a day. LHC reported the presence of satellite bunches during the last fill. The origin of this was traced back to a bad phase on the 80 MHz cavities in the PS, and it was fixed on Tuesday evening.

On Wednesday an ion cycle with $Q=20$ was set up in order to check whether it gives less IBS. For the moment it is not very conclusive. Some time was lost on Wednesday afternoon due to a LINAC3 problem, and when LHC restarted during the night, we had to call in an expert for a power supply problem in TI8.

Thursday afternoon the beam in LEIR was not accelerated. It was discovered by the expert that the power on some vital RF pick up's was off. During the night, the SPS suffered (again) from a problem with TRX4. The expert worked most of the night to exchange some parts, after which it was functioning again.

On Saturday we went back to the 412GeV cycle on the request of NA61. The weekend was very smooth until early Monday morning when a problem with the access system occurred in BA1. The sector had to be patrolled, after which the SPS could be restarted.

LHC

48 hours (Tuesday & Wednesday) or so lost to loss of primary cooling water point 4 and knock-on effects – cryo, vacuum in S/C link at point3. Otherwise productive week.

<http://lhc-commissioning.web.cern.ch/lhc-commissioning/>