

## End Week 40 (October 7th 2012) – Status of Accelerators

### Statistics

nTOF: <https://espace.cern.ch/be-dep/OP/PS/default.aspx>

CNGS: [https://accstat.web.cern.ch/accstat/statistics/charts/2012/SPS/CNGS\\_Target\\_Cumul2012.jpeg](https://accstat.web.cern.ch/accstat/statistics/charts/2012/SPS/CNGS_Target_Cumul2012.jpeg)

LHC: <http://lhc-statistics.web.cern.ch/LHC-Statistics/index.php>

### LINAC2 (Rolf Wegner)

Last week was not too bad for Linac2, faults:

- \* Power supply of quadrupole LA1.QDN27S had to be replaced last Monday, 80 min downtime
- \* RFQ and buncher\_1 had to be reset after vacuum interlock last Monday, 5 min downtime
- \* Vacuum piquet had to open valve (LI.VVS20) last Sunday, 26 min downtime.

### ISOLDE (Emiliano Piselli)

This week users got beam according to schedule without any major problem.

To mention 2 things:

- HRS TARGET and LINE power supplies could not be controlled remotely and for this I was called in on Friday morning.
- The faraday cup in GPS separator zone got stuck again and was necessary an intervention of BI (with RP and following ALARA procedure) in order to unblock it.

### BOOSTER (Klaus Hanke)

An excellent week for the PSB without any down time.

Erratic transformer measurements and missing injection trajectories were fixed by our colleagues from BI.

Apart from that we were busy with a number of parallel MDs, which did not only require beams from the PSB, but also quite some service from the OP team.

### PS (Rende Steerenberg)

The PS has been running quite well last week, but suffered nevertheless from several short beam interruptions that had mainly two causes:

- GFASes of the Pole Face Windings that do not pulse at the correct moment in time, causing substantial beam losses at transition. CO has been asked to give this problem a high priority.
- POPS trips with different origins. Sometimes following interventions on the PFW's for the issue mentioned above, but also due to a water-cooling problem and several times IGBT faults in DC1. In addition with increasing frequency some magnetic cycles are not played without fault reporting, but causing a total beam loss at injection.

Sunday, on request of ALICE, the satellite bunches in the PS were increased. However, the PS has no means of quantifying or qualifying these satellites. Increase confirmed by LHC.

The CNGS beam intensity is still produced at nearly nominal with  $2.2E13$  ppp extracted towards the SPS keeping the PAXS35 radiation monitor below the 100 microSv/h threshold. Investigations continue to understand this sudden (positive) change that took place last week and which is not yet understood.

Further details on PS operation can be found at: <https://edms.cern.ch/document/1244790/1>

## SPS (Edda Gschwendtner)

During **Monday** Q20 extraction to LHC with 25ns bunch spacing was tested.

North Area was off during the morning due to primary beam preparation for H8.

From **Tuesday until Thursday**, beam to HiRadMat was extracted.

On **Wednesday** during the MD, the vertical wire-scanner 519 broke down. So currently there is only wire-scanner 416 H/V left. After the MD, beam to the North Area was delayed by ~6hrs due to problems on the data bus for the North Area power converters.

On **Thursday** there was a 1/2hr beam stop due to a main power supply failure caused by a short-circuit of an auxiliary circuit.

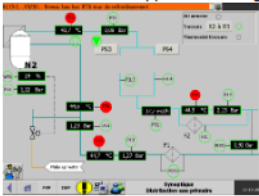


On **Friday** clipper 6 on the MKP generator 3 was exchanged, causing ~2hr stop. In the afternoon a SPS transformer in BA3 for SMD3 had a short-circuit. Beam could be restarted after ~2hrs: the configuration was changed by switching from SMD3 to SMD13 powered by BA2.

**Saturday and Sunday** was very quiet. Sunday early morning the CNGS horn went off for 2hrs; a CPU card at the power supply was exchanged.

## TI (Peter Sollander)

The TI summary is in the usual place:

<http://wikis/display/TIOP/2012/10/08/TI+summary%2C+week+40+2012>

day	events
Wednesday, October 3	<ul style="list-style-type: none"> <li>15:02 -- POPS stopped on cooling problem. 40 minutes lost.</li> </ul> 
Friday, October 5	<ul style="list-style-type: none"> <li>13:58 -- SPS transformer outside CCC breaks with a flash and a boom. Quick intervention by fire brigade, EN/EL and EPC. SPS back up within an hour.</li> </ul> 
Sunday, October 7	<ul style="list-style-type: none"> <li>13:31 -- BA2 septa water circuit stopped for a few minutes.</li> </ul> 

## LHC

Scrubbing run postponed after tests with 25 ns on Monday – new injection kicker still conditioning. Thereafter good week, over  $1 \text{ fb}^{-1}$  delivered. Usual mixture of time-outs.

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