

End Week 36 (September 12th 2010) – Status of Accelerators

Booster (Klaus Hanke)

Fairly good week. The Booster delivered beams to all our users, including 150 ns beam for the LHC.

The only major problem worth mentioning was related to the recombination kickers, which went down on Tuesday. The expert diagnosed a problem with the oil supply. Once this was fixed, one of the kickers would not switch back on (condition missing). Rebooting a DSC set the conditions back to normal and all kickers were OK again. The total down time for all our users was about 1:10 h.

Apart from that only the usual resets and reboots here and there.

On Monday morning we will have a 2 h stop (1 h cool-down, 1 h interventions) in order to do a number of urgent interventions in the injectors which have accumulated. All beams stop 07:30, and it is planned to be back in operation as from 09:30.

AD (Bruno Dupuy)

It was a very quiet week:

- No failures (AD) during this week, the beam was 100% available for users.

The intensity of the beam is correct $> 3.5E7$ anti-protons.

The length of the bunch is important > 190 ns, but stable.

ISOLDE (Didier Voulot)

- On Monday the water cooling for the targets stopped, the target heating (GPS) stopped immediately and the cooling system switched to the reservoir (which provides cooling for > 1 h). The cooling system could be restarted by EN/CV but the cause of the problem is not yet fully understood. This will be investigated during next target change on Monday and/or next technical stop.

- HV problems on HRS caused the target heating to stop twice on Tuesday. The problem is now understood (vacuum gauge switching off) and will be corrected by TE/VSC. The target was not damaged and the run could take place.

- Also on Tuesday, failure of the RFQ-cooler RF generator which delayed the stable beam set-up. The RF generator was replaced by a spare on Wednesday. (This equipment is orphan, need to find a long term solution.)

- Two successful runs this week: Mn beams on GPS for solid state physics which ended on Monday and ^{201}Au (a difficult beam) on HRS this weekend.

PS (Rende Steerenberg)

There were many issues during the week with varying importance, but the beam availability was nevertheless rather good. All operational beams were delivered including the LHC 150 ns beam for the LHC bunch train filling.

The details on all the issues are treated in the PS supervisor meeting, but the major issues are mentioned below.

On Monday a ppm copy of a single parameter caused havoc on many different users and parameters. After thorough investigation it turned out to be a bug in the ppm copy management of FESA parameters. A correction has been implemented. However the problem caused a few hours of downtime for different users as recuperating the setting was not trivial.

The 10 MHz cavity in SS76 tripped rather often, but could be reset every time. However, it needs some follow up this week.

During the week there were also several issues with OASIS that were followed up by the OASIS support team.

Due to modifications of access rights it became impossible to change the super cycles within the PS island. The workstations in the PS island did not longer have access right to files that are needed to modify the super cycles. However, after some lost time it turned out that the editing could still be done from the SPS island.

SPS (Karel Cornelis)

Again a rather busy week for the SPS. On Monday and Tuesday we continued the re-setting up of the MTE on CNGS2. During the INCA incident on Monday, all settings of the MTE were lost in the PS and everything had to be done over again. Wednesday and Friday the setting up of the Ion cycle continued with the commissioning of new RF hardware.

On the list of problems we have the BA3 water cooling which is running on manual temperature regulation. The problem will be fixed today, Monday, during the 2 hours' stop. On Wednesday evening we lost a couple of hours due to a 400V problem in BA1. We also had problems again with the sequence manager on Thursday evening. The CO piquet had to be called in to solve it by removing some corrupted files. On Saturday it was found out that there was a small energy error on the flat top of the LHC3 cycle (end of ramp did not fit with flat top value, resulting in a small slope). The problem was fixed.

LEIR operation summary (Maria Elena Angoletta)

Calm and very positive week.

The EARLY beam was sent to PS+SPS on Wednesday 8 and Friday 10 September from 8:30 until 18:00 (no request for beam in SPS on Thursday 9 September owing to the Jeune Genevois holiday).

A 2-hours PS/PSB access was granted for Monday September 13 morning. The BE/BI experts have received notice of this access and will use it to restore the gain on a semgrid located in the LEIR ETL line, thus allowing us to measure the emittance of the beam which is sent to the PS.

On Monday September 13 the oven will also be refilled, as it is going to happen every other week until December. Beam will be available again in LEIR from Tuesday 14 Sept afternoon.

TI (Peter Sollander)

Here's the summary for the past week:

- Wednesday, September 8,
 - o two hour stop of LHC for fuses blown on ERD101/87 in UA87. Intervention by TE-EPC and EN-EL to change fuses. Unclear what caused the problem, but it has not reproduced.
 - o a one hour and a two hour stop of the SPS due to a transformer tripping in BA1. The origin was a oil valve breaking during a maintenance intervention. Some air got into the circuit.

That's it for the major events of the week.

LHC – full details under coordination at:

Bunch train commissioning progressing well.

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