

## End Week 15 (April 14<sup>th</sup>) – Status of Accelerators

### AD (Tommy Eriksson)

We aim to close the ring 20/4 and then start HW-checks.

### Booster (Giovanni Rumolo):

At the beginning of the week, the magnets BT.BVT20, BT.QNO50 and BI4.QNO50 were frequently in fault. After the hardware interventions that took place on Wednesday, the problem did not appear for the rest of the week.

Re-loading archives from last year (for example, to restore to operation the LHC25A user) mostly worked well, but occasionally the archive application would suddenly disappear along with the working set, when requesting to restore a selected archive to hardware. Other control problems were found when saving and restoring to/from reference via the GFA editor, and when making PPM copies of beams. The new wire scanner application has been used, but it still needs to be improved to become 100% operational.

In general, from Thursday morning on, the PSB operation has been suffering from the frequent (and sometimes long) downtimes of Linac2 due to cooling problems.

Beams: under request from the PS, the LHC25A has been set up and checked; the ISOLDE beams are ready to be taken on Tuesday morning.

### PS (Rende Steerenberg)

The setting up with beam continued, but is limited by the intensity reduction imposed as a consequence of the limit on the radiation level on the route Goward.

Work was done on the following beams:

- TSTPS and MDPS for orbit measurements
- SFTPRO with fast extraction
- TSTLHC
- EASTA, with nTOF and EAST extraction
- EASTB east extraction only

During the week we regularly suffered from a limit of 25 server subscriptions for different equipments. If we try to go beyond, which we cannot monitor until the problem appears, all acquisitions on related systems stop working. This definitively needs to be solved as it hampers operations considerably.

Especially during the 2nd part of the week many problems with OASIS surfaced again. On several occasions the piquet control intervened and managed to solve several problems. Other problems could not be solved and OP issue reports were generated in JIRA.

On Monday a intervention was made in the TT2 line as an interlock cable on the F16.QDE22s.

Tuesday the tune measurement gave unrealistic result when the MRP measurement was enabled. It turned out that the tune measurement used a by the CODD/MRP re-generated revolution frequency, which was wrong when the MRP mode was selected. The same day we also started using the fast wire scanners and found some issues to be solved, but we also managed to measure profiles, but they cannot yet be used to measure the beam emittances.

Wednesday the extracton kicker modules tripped several times. After the specialist changed a small power supply of the oil circuit the problem was solved apart from module 10, which might need a new tube.

On Thursday it was found that there is a problem with the interlock connections of two low energy vertical corrector. As a consequence we cannot use the vertical corrector in SS30.

On Friday and Saturday the ring transformer suffered form an offset of about 2E12. This was solved by the specialist on Saturday by replacing a faulty electronics card.

During the remainder of the weekend the setting up continued and several issues were observed that will be followed up this week.

In general we are pleased with the good support we receive for the different equipment groups in case of problems.

## SPS (Karel Cornelis)

During the past "short" week the commissioning of the main power supplies was continued. By Thursday all stations were ready and we could start pulsing the machine. We started to study the compensation trims at the connections of our new "individual " cycles.

The RF cavities are ready, the ZS was conditioned and the conditioning of kickers is well under way.

This week we start with the cold check out.

This morning there was a problem with the compressed air on the switch of one of the main transformers. The pulsed circuit has been reconfigured and they are repairing the compressed air valve at the moment I am writing this.

## TI (Peter Sollander)

No major incidents to report from the TI desk.

One minor problem Saturday 11/4:

- In the afternoon, the firemen call us to report an inundation in

ECX4 and request an electrician to isolate the zone electrically.

After investigation, it turns out that it is a leak on a flexible hose on a kicker magnet (K2)

R. Barlow on site to diagnose the problem decides to leave the installation off until today, Tuesday.