Minutes of the 32nd FOM meeting held on 06.09.2011

Agenda:

1) Follow-up of the last meeting (R. Steerenberg)
2) Status of the machines
3) Schedule (R. Steerenberg)
4) AOB
5) Next agenda

1 Follow-up of the last meeting

The minutes of the 31st FOM meeting were posted but not circulated. Their approval will be addressed at the next FOM.

Follow-up from the last FOM:

Pending actions:

Provide spare PENTEK 1420 frequency synthesizer card for PS complex timings

R. Steerenberg said that it was done. Action closed.

Status of the PS-Bfield fluctuation with POPS

R. Steerenberg said that work is ongoing. Action not closed.

2 Status of the machines

LINAC2 (A. Lombardi):

It was a quiet week.

The hydrogen bottle was changed during the technical stop. Beam was available at 3pm on Wednesday.

On Saturday night one of the LINAC quadrupole (LA1.QFN06) power supply had to be changed (20 min downtime).

PSB (J. Tan):

It was a busy week for the PSB

The technical stop went smoothly and was completed in the middle of the afternoon on Wednesday. When switching on the PSB, the piquet power had to be called for multipoles. Following a discrepancy in the security chain, the piquet CO checked a rack and found a bad transmission of the digital signal. Replacing a board card solved the problem. Finally, timing issues and an InCA issue for ppm copy occurred while setting up the beam for NORMGPS. The machine was ready for physics at 10h45.

On Friday there was an InCA problem on cavities GFAs, which was fixed by the InCA team. While Isolde was sharing high intensity beams, there was a radiation alarm as one alarm threshold was not

updated. J. Vollaire confirmed that the increase of the alarm level was necessary due to the increase of the total amount of beam delivered to ISOLDE (2.5 micA instead of 2micA) and was not related to increased beam losses.

During the weekend, the 2MHz cavities 2 and 4 tripped several times. First the circuit breaker was fixed causing a downtime of 30min, after the second trip they could be reset remotely, after the third trip a power supply needed to be rearmed and finally the an airflow problem caused a downtime of 1h. The specialist came on Monday and replaced an air flow detector and regulated another one.

On Monday, the flat top of BT4.SMV10 was unstable leading to bad ejection trajectories. J. Tan warned that this problem may come back.

ISOLDE (P. Fernier):

GPS, HRS and Rex have been running this week.

HRS (30 kV run for Miniball via Rex with target 457 and beam for Collaps during the night).

Setting up, proton scan, and yield check were done. Beam was ready for physics on Monday evening. Physicists were very satisfied.

GPS (10kV, 30kV, 50kV runs with target 458)

Users have been complaining that the yield of the target was low.

On Monday, 2 stops of the heating of the target are being investigated. Besides GHM.DP10 and GLM.DP10 were stuck in the beam pipe. A reboot of the plc enabled to move GHM.DP10 but not GLM.DP10.

Diagnostics show that the problems are located inside the separator zone. Investigations are under way and this issue will be followed up at the user's meeting this afternoon.

The run will finish on Thursday and 2.5micA will be used until Wednesday evening.

ISOLDE users (M. Kowalska):

It was a reasonably good week of sharing beam between GPS and HRS.

Solid state physicists can use 1micA but were interrupted by the GLM deflectors issue. Users would prefer to run like this as the target survived. This will be discussed this afternoon.

On HRS there was a laser spectroscopy run. Users were very happy on REX.

M. Kowalska extends her thanks for giving more than 2 μA.

PS (Y. Papaphilippou):

The main point of the week was the POPS break down and the switch back to MPS.

There was a smooth MD session and technical stop. Beams were back after tests for POPS. MTE stability measurements were also performed.

A field overshoot was observed at the arrival on flat top (1 Gauss). At injection, problems with the RF synchro occurred when setting up the 25ns beam. The POPS experts were informed and scheduled an intervention on Friday. They could put back the fluctuations to the status before the technical stop (and even better after another intervention in the afternoon). However, POPS only worked for 30min before tripping due to a small fire in an IGBT cabinet. The fire was traced to the debris of a melted multi-contact which fell on a busbar and started burning the support. More details

are given in slides by J. P. Burnet. Another multi-contact was found in a similar state. The MPS was then restarted and it took 3.5h to have the MPS back up and running. R. Steerenberg said that POPS should be down for at least for 3weeks, be this has to be confirmed.

Several 10 MHz cavities were tripping without an apparent reason. C96 needed the intervention of the specialist, for which a problem was suspected with the amplifier. In the shadow of the PSB intervention, the amplifier was changed, and the C96 was put back on. The 80 MHz cavities also needed the intervention of the specialist.

On Sunday the PFW tripped and it was not resettable. The issue was traced to a patch panel. A spare was found but it also died, and it had to be replaced by a temporary one. Beam was cut for 2.5h. Discussions on this patch panel are ongoing.

East Area (L. Gatignon):

Retuning was needed after the technical stop. There was a trip of ZT8.QDE01, which turned out to cause mainly radiation alarms to DIRAC.

On the North branch, BI was testing cryo BLMS and DIRAC was running IRRAD.

East Area Users ():

L. Gatignon said that there was nothing special to mention.

TOF ():

TOF is well above the curve.

AD (B. Dupuy):

During the technical stop the vacuum group changed a vacuum chamber (BHZ8000). A vacuum leak was found in sector 48 between QFW and BHW and was fixed with resin. The AD restarted a bit later than expected on Thursday at 9:00am. J. Hansen precised that an old welding was at the origin. A definitive repair will be made during the winter shut down as the repair will require at least a week of bake-out.

An MD was performed on Thursday to measure optics of the extraction line, and study the wire chamber and the cavity in mode h=1 at 100MeV. The beam was then recalibrated for physics as expected.

Many stops in PSB and PS perturbed physics during the WE.

Three AD elements tripped but could be reset by the CCC.

AD Users ():

T. Eriksson said that AD users did not get a lot of beam but no complaints were reported.

SPS (K. Cornelis):

Most of the week was spent in MD or technical stop.

During the technical stop, a quadrupole was changed but no correction was needed after the fiducialization as an alignment error of 0.04 mm was observed. Beam came back on Wednesday night. During the UA9 coast, a problem occurred with a water flow switch which was giving a bad state. On Saturday morning normal physics conditions were established. TT20 needed readjustments to avoid losses on splitters. CNGS and LHC beams were also checked.

On Saturday, beam dumps were caused by an MKD energy tracking fault. Yesterday E. Carlier worked on it, and it seems the issue disappeared. On Sunday, PS had to produce lower intensity on CNGS, and the lead ion cycle was put in the supercycle. Lead ion beam may be injected tomorrow.

North Area (L. Gatignon):

The North Area came back normally after the technical stop.

The access door 124 tripped chain 11 (access team is aware) and yesterday there was an instability in the wobbling currents, due to bad contact on a status card (fixed by FirstLine).

H8 went from primary to secondary beam.

H4 experienced difficult electron conditions.

North Area users ():

L. Gatignon said that it was impossible to take physics data on COMPASS due to their target.

CNGS (E. Gschwendtner):

The sumps were emptied during the technical stop. The restart was good, but reflector trips occurred (the expert is on site). He found insulation issues and fixed them but it did not help. CNGS is still well above the curve and the protons on target is expected to reach last year's numbers in the next days.

CTF3 (S. Deboers, reported by D. Manglunki):

Measurements were performed on the two beam test stand. Limitations were observed due to the resolution of BPMs. On Wednesday and Friday, calibration and beam based alignment were performed.

3 week installation period will occur in CLEX from this week.

D. Manglunki said that CTF3 will possibly run continuously after PETs installation.

TI (P. Sollander):

Nothing special to report for the injectors.

LHC interface with injectors ():

K. Cornelis said that LHC is slowly coming back after the technical stop, which ended on Saturday. LHC has been asking for probe and pilot bunches, and now LHCINDIV. The aim is to squeeze to 1m. K. Cornelis added that 12 bunch trains will be used initially.

IONS

LINAC3 (D. Küchler):

An oven refill was performed during the technical stop. The beam was back on Wednesday afternoon. The working sets wrongly said that the slits were closed. Hardware and software disagreed and beam disappeared. It turned out someone had installed a new software version (software development) without communicating it.

Stable beams otherwise.

LEIR (S. Pasinelli)

EARLY beam produced easily.

On Friday there was a problem with a DSC, which was exchanged (also a function generator).

PS (Yannis)

Nothing special to mention. The 80 MHz cavity was tuned for protons for the MD, and was retuned back after the MD. The option of blow up was introduced and is available (ILHC and ILHCSU).

SPS

Capture should not be ready before tomorrow. SPS will be happy with the EARLY beam. Emittance measurement with the repaired SEMfil 277 could be compared with SPS measurements.

3 Schedule / Supercycle / MD planning

The 2011 schedule (V3.2) is available at:
https://espace.cern.ch/be-dep/BEDepartmentalDocuments/BE/injector_schedule.pdf

All planned interventions for the injector complex are available via the on-line agenda:

https://espace.cern.ch/be-dep/FOM/Lists/Agenda/calendar.aspx

R. Steerenberg presented the draft injector schedule for next year.

It was not discussed at the Research Board last week and is thus still subject to changes. One of the main changes with this year is the additional 2 to 3 weeks of technical stop at the beginning of 2012. The beam is expected to be available to LHC on March 5th, ions in LEIR in August, ion run stops on 24th Nov, followed by Long Shutdown 1. The end of year is not very clear yet. In particular there is a LIU request for an SPS scrubbing run and it needs to be discussed. M. Kowalska said ISOLDE would like to start one month earlier than this year but the question was raised that all services may not be available.

D. McFarlane asked whether the 2012 shutdown dates can be circulated already.

4 AOB

A. Bland said that OP accounts were blocked on lxplus since yesterday, and it should not affect people who need it. If there is any side effect, please contact A. Bland.

5 Next meeting

The next meeting will be held on Tuesday, 13th September at 10:00 in 874-1-011.

Preliminary Agenda:

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Minutes edited by B. Salvant

with the help of reports from machine supervisors