Minutes of the 42nd FOM meeting held on 15.11.2011

Agenda:

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

1 Follow-up of the last meeting

The minutes of the 41st FOM meeting were approved.

Follow-up from the last FOM:

Pending actions:

Status of the PS-Bfield fluctuation with POPS

Many measurements are being done before the winter stop to observe the fluctuations (also with ions), and this study is in progress.

Action not closed (will most likely be carried over to next year).

Find a way to know if screens are in the beam (in AD and PS)

After the last meeting L. Soby followed this up and T. Eriksson confirmed that the status of these devices for AD (in this case DR.MTV5303) are directly visible on the CCC safety chain panels even if a DSC is down. During the meeting, A. Guerrero also confirmed that the information is available in the CCC, and that by default this particular screen is in for safety reasons.

As for the PS screen it is linked to a LEIR timing and a cable will be put to make the PS timing available. The video signal will also be added.

Action closed.

2 Status of the machines

LINAC2 (M. O'Neil):

It was a good week.

The technical stop work was completed and Linac2 was ready by 16:00.

On Friday, the piquet power changed the power converter of LA1.QFN44s quadrupole (1 h downtime).

D. Küchler reminded that visitors entering Linac2 should be over 16, and reminded also the visits service.

PSB (B. Mikulec):

After the technical stop, it took 1 h to switch everything back on, but the C04 cavity of ring 3 tripped and required an access to change a relay gap. Beam was back at 7:40 p.m., but losses at injection caused by BI.QNO20 required calling the piquet Power. Furthermore the C02 cavity tripped (solved by specialist). The PSB MD finally started at 10 p.m.

On Wednesday, trips of the C02 cavity of ring 4 were found to be due to high temperature inside building 361. The air conditioning was not working. S. Deleval explained that it was a technical problem of the ventilation motor of the cooling tower and that the alarm went to the TI consoles.

Two issues with the transverse feedback on ring 4 for AD and on ring 2 for TOF were solved by resetting the inner amplifier and restoring a disabled timing.

On Sunday beam were stopped for the PS vacuum leak detection (2h30 downtime) and the resulting wire scanner removal (4h30 downtime).

BTY.DVT324 tripped several times, and the piquet First line exchanged a VERO power supply.

On Monday, all beams were lost, as a GFA function was not executed (BR.GSQDE). After a reboot by the piquet Control, all functions tripped and finally the crate was rebooted (1h15 downtime).

Various MD beams were provided, and a lot of progress was made with LLRF beam control.

ISOLDE (E. Piselli for M. Lozano Benito):

It was a very good week. All experiment got beam according to schedule.

ISOLDE users (M. Kowalska):

It was a very good week. The WITCH experiment (which was “cursed”) was very successful this week. A new exotic experiment was also successful. The last experiment of the run started.

PS (A. Guerrero):

After the technical stop, POPS started and was ready at midnight. During the night and the following day, POPS was tripping due to cooling problems. New regulation parameters were set to improve arrival to flat tops.

On Wednesday, there was a short fault on magnet ZT10.BHZ01. Since radiation levels are very high, it was decided not to send beam to line T10 and to move the users to T9.

There was a problem with cavity 80-08 which required interventions. It seems to be OK now.

Beam was lost for AD due to a DSC problem that resulted in counterphasing of groups of 10MHz cavities (6 h were lost). Rebooting the DSC locally succeeded in solving the problem.

The CNGS beam was not available for 2 h due to a bad working point.

Cross calibration of the wire chambers took place for the BCT with new electronics for DIRAC, but it is not yet satisfactory and it needs more calibration.

An external AC cable for the DFA for MTE was found cut and was fixed.

The most disturbing event of the week occurred on Sunday, when a vacuum leak was detected. The piquet Vacuum accessed the machine and found it on the bellow of wire scanner 54. It was decided to remove the wire scanner and to replace it by a pipe although a spare wire scanner was available. A. Guerrero explained that the spare wire scanner was not properly calibrated as it had been taken out of the machine and it was too hot to perform a proper calibration. A. Guerrero added the situation should be fine until the end of the run like this as there are two other horizontal wire scanners available. The PS was down until Monday morning. The wire scanner broke after 5200 scans, while it is designed for 10,000, and is regularly replaced after 6,000 scans. A new type of bellow is now available from a supplier, which could go up to 100,000 scans.

R. Steerenberg said that lifetime of the ions is good now.

POPS is running smoothly.

East Area (L. Gatignon):

CLOUD had suffered from a broken compressor and could only take some data. They can now profit from the beam.

As mentioned in the PS summary, there was a short on a T10 bend due to cable degradation. This area is irradiated (1.3 mSv/h) and the intervention had to wait. It was then decided to stop beam for T10 and move the users to T9. Users were ready on Friday and they are sharing the beam with the other users of T9.

An automatic program switches off half of the lights in the East hall at around 17:00, while the other half does not work. A solution needs to be found. P. Sollander will follow this up.

East Area Users (H. Breuker):

T7 and T8 are running fine.

T9: ALICE has priority.

CLOUD lost several days with this and requests to run longer with protons.

TOF (H. Breuker):

TOF is fine.

AD (B. Lefort):

AD recovered only on Thursday afternoon.

There was a power supply problem for a pickup.

There was the first beam for the AEGIS experiment (only a few hours per day), and the line was steered. There was a trigger problem as they need a C-train instead of a B-train.

AD Users (H. Breuker):

There is a meeting to see how to organize the end of the run.

ASACUSA and ALPHA complained that they lost quite a lot of beam time. AEGIS was very happy to see the beam.

SPS (D. Manglunki):

From Monday to Friday the SPS was in MD, interrupted by the technical stop on Tuesday. The technical stop went smoothly and all scheduled repairs could be finished.

The new muon detectors were installed, and operation was resumed on Friday.

CNGS was off all week, and the stop was used to install new diamond muon detectors. On Friday evening we resumed CNGS operation with the nominal high intensity beam.

CNGS (E. Gschwendtner):

All the muon equipment was installed. CNGS took beam on Friday evening, and most of the detectors work fine. There is an issue with logging as the data rate is huge. They will continue until Thursday and want to switch to 500 ns on Thursday afternoon. A confirmation from Gran Sasso is needed.

CTF3 ():

No report.

TI (P. Sollander):

It was a quiet week.

LHC interface with injectors (M. Lamont):

No protons.

IONS

LINAC3 (M. O'Neil):

Oven was refilled and the source restarted on Wednesday.

On Thursday and Friday, problems with the temperature stability of the cooling water caused the source to trip twice.

There was a problem with the RF on tank 1. A tube is ageing as well as the amplifier. The timing was changed and the tube will be changed in 1 week from now. Stability was good, 20 to 22 μA.

Many alarms occurred on PAX 11. R. Steerenberg said that RP will provide the list of level A and B alarms, so that he can analyze them.

LEIR (S. Pasinelli)

Very quiet week.

PS (S. Gilardoni)

The cavity 80 MHz (80-08) problem was already mentioned in the PS proton summary.

The question was asked whether there will be an intervention on POPS again. R. Steerenberg said that there is a request for a 15-min-stop to install a Plexiglas plate and do imaging of the racks. It was agreed that this will be scheduled by OP, possibly in the shadow of another intervention.

SPS (D. Manglunki)

The last hours of the MD on Thursday were used for the setting up of NA61 at 13GeV/c per nucleon. The beam could be set up and delivered for the night.

On Friday a new cycle was asked requiring raising the flat top energy from the nominal 400 GeV to 412 GeV. This means 3% increase in field, 4% in current, 8% in power, and it took the whole day to get the beam ready, as the flat top was too long for this energy.

The beam started to be delivered on Friday evening and since yesterday, SPS was able to inject 24 bunches in LHC. Four breakdowns occurred in the same time (PS 80 MHz cavity was down, TT10 trajectories, injection kicker pulse timing displaced, problem with mastership), and made it difficult to diagnose.

Probe beam was delivered and the SPS switched back to longitudinal blow up tuning.

A problem with the mastership was found. Although the LHC had released the mastership, LEIR still saw that LHC had mastership.

North Area ():

No report.

North Area users (H. Breuker):

NA61 has done a calibration; ready to take data now, with energy increased by 4 GeV.

LHC

LHC was running fine after the technical stop. 5 times last year's maximal peak luminosity was achieved.

For tomorrow the start of proton-Pb test is scheduled. Single bunch Pb and 100 ns proton beam are ready. First an MD will take place and then physics. D. Manglunki reminded that 24 bunches is exclusive of other cycles.

3 Schedule / Supercycle / MD planning

The 2011 schedule (V3.6) 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

Protons will be stopped on Monday at 8:00 am.

RP measurements will be done in all machines 30 h after the technical stop, which means 14:00 on Tuesday. H. Vincke will check how long it will take. Following the early stop of protons in PS and SPS due to the PS injection septum problem, the RP survey occurred on Thursday afternoon in these machines.

G. Rumolo said that both MDs are UA9 floating MDs (48 h). NA61 will be stopped, but could take some beam when LHC is taking the pilot but it should be marginal.

4 AOB

5 Next meeting

The next meeting will be held on Tuesday, 22nd December at 10:00 in 874-1-011.

Preliminary Agenda:

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

Minutes edited by B. Salvant