Minutes of the 28th FOM meeting held on 09.08.2011

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 27th FOM meeting were approved.

Follow-up from the last FOM:

Pending actions:

Problem with PS tune measurement with POPS

R. Steerenberg said that the tune measurement now works. Action closed.

Monitor the Bdot at the reference magnet with POPS

R. Steerenberg said that the noise is gone. Action closed

Status of the PS-Bfield fluctuation with POPS

S. Gilardoni said that the magnet group managed to investigate the quadrupolar error and now the OP team needs to assess the tune shifts due to these errors. Action not closed.

2 Status of the machines

LINAC2 (R. Scrivens):

On Wednesday the issue of the lack of signal on the LBS SEMGrid when measuring ions was investigated, but the issue could not be seen with protons and will have to be followed up with ions.

On Thursday an access in the PS inflector zone and Linac2 was organized in the shadow of the POPS intervention to look for the water leak. The leak was found on the slit cooling circuit where a pressure regulator failed. A temporary fix was put in place and a permanent fix is planned for the next technical stop.

On Sunday there was an access system problem for 3 hours. The safety chain was broken and the piquet access had to intervene. There was a vacuum system acquisition problem and the vacuum piquet intervened on Sunday evening. Beams could be executed but there was an alarm and no manipulations could be done. After the meeting, S. Blanchard informed that the fault was due to a fatal error in a CPU, requiring its replacement and reloading of the code.

PSB (K. Hanke):

It was an interesting week.

The planned stop for POPS occurred on Thursday and a number of interventions took place in the shadow of this stop (vacuum checks, lift maintenance, access for RF for Finemet cavities).

An attempt to restart the MPS was done at 12:30, but the piquet needed to intervene and at 14:30 the MPS was restarted.

In the evening, the expert came and fixed a slow extraction kicker problem as well as also another issue that was affecting rings 2 and 4.

On Saturday, two trips of the distributor happened (only a few minutes). A card was changed, and it has not tripped since.

On Sunday the security chain was down, as already mentioned by R. Scrivens. The beam stopper went in and the access system piquet could get beam back at 8:30.

There were also a number of small problems during the week.

A few InCA issues are being followed up.

A. Findlay mentioned that a lift is still out of order. Nicolas Gilbert is aware and the intervention is planned for the next technical stop.

ISOLDE (P. Fernier):

HRS

There was a Cd run for MINIBALL through REX. The physics program was followed and users were satisfied despite a vacuum leak on the target that slowed down measurements.

GPS

The Uranium Carbide run for ISOLPTRAP and COLLAPS went rather fine. A problem occurred with one of the high voltage power supplies. It will take several weeks to repair it.

There is an ongoing issue with a DSC.

An increasing number of vacuum interventions are reported. A vacuum piquet was asked for ISOLDE and the vacuum group agreed to cover this piquet after a transition phase. After the meeting, J. Hansen informed that the ISOLDE Vacuum Piquet will be operational in January 2012.

A question was asked by T. Wijnands if procedures can be written to facilitate ALARA interventions in order to get back to physics quicker. The streamlining of the procedure is being followed up by a dedicated working group.

ISOLDE users (M. Kowalska):

Users are happy. HRS thanks the OP team for sending the maximum amount of protons.

PS (R. Steerenberg for Y. Papaphilippou):

It was an eventful week.

The switch to POPS went quite well. POPS was again operational after 8 hours of intervention and setting up. As in other machines several interventions occurred in the shadow of this stop.

The BBQ signals and the Bdot are much cleaner than before and indicate that the EMC noise levels were greatly reduced with the new filter. The POPS team is currently working on the arrival on the flat tops to reduce the observed overshoot of 0.4 Gauss. R. Steerenberg sent a big thanks to the POPS team for the very good work and support.

On Friday afternoon, the timing specialist had to change a module as a fine delay was not produced correctly, which was affecting the PS RF train and phasing. This caused a downtime of 2 hours.

On Sunday, the MPS tripped and could not be reset due to a veto from the access system. The access specialist had to replace fuses. This caused 3.5 h downtime. Shortly after, all 40 MHz cavities were on fault. The specialist came but he also needed the LLRF piquet who could not be immediately reached. Meanwhile wild phase oscillations appeared at transition. After 8 hours of common effort, the situation was stabilized by resetting the MHS module and retuning the 40 MHz cavity, and the LHC could be filled. However higher losses than usual were still seen on high intensity beams and the reason could not be found so that it was decided to reduce intensity until more investigations could be done on Monday morning. Another problem appeared in the evening when a reboot of the GFA DSC, which was on alarm, put down the low energy focusing quads, without ability to reset them. The piquet CO and PO were called, solved these issues and beam was back after 2 hours of downtime.

On Monday morning the losses problem disappeared with the high intensity beams and this was not understood (the 40 MHz cavity is suspected but this has to be confirmed).

Since only one 40 MHz cavity was working an access was granted on Monday afternoon to investigate the cavity C40-77. It turned out a small piece needed to be replaced, and it will be done with another access right after this meeting at 11:00.

East Area ():

No report.

East Area Users (H. Breuker):

IRRAD T7: a small shuttle was blocked yesterday morning and required an access.

T9: calibration for OPERA bricks.

T10 and 11: no users.

TOF (H. Breuker):

Smooth running.

AD (L. Bojtar):

It was a quiet week.

An MD was performed to try and solve the problems in the injection line.

The steering was perturbed due to external magnetic fields. A magnetic shielding was put in place in BHZ8000 a few weeks ago but it turned out to make things worse, even after correcting the optics. The shielding was then removed and new optics was implemented so that now the number of pbars at the experiment is back to normal. An intervention is planned for the next technical stop to do a better shielding.

On Friday a problem occurred with a DSC and the supervisor will contact CO.

Finally a cavity went down.

AD Users (H. Breuker):

Users were not completely happy.

Installation for AEGIS is continuing.

SPS (E. Métral):

The SPS delivered beam to the LHC, CNGS and the North Area.

Parallel MDs to study high bandwidth feedback showed that it was possible to excite the beam.

The floating MD to reduce the ion beam size on the T2 target progressed well and a factor 2 reduction seems within reach.

On Thursday the beams were stopped at 9:00 for the POPS intervention. Several interventions were performed in the shadow of this 8h stop.

In the evening, the RF piquet intervened for a cooling problem on TRX3. A permanent fix will be done at the next technical stop.

On Friday, the vacuum group informed that a vacuum leak was suspected in BA5 (around dipoles 52030 and 52050). Leak detection was performed in the afternoon but without success. According to P. Chiggiato, the leak had already appeared in July. The beam was back only in the evening. It is now clear that there is a leak, but the vacuum group needs to go in the tunnel again to try and locate it. It was agreed with the OP team that this detection would take place during the PS access.

E. Métral and D. Manglunki insisted that it is a delicate detection as the machine needs to be warm. The vacuum group will go in while the magnets pulse in BA5 in patrol mode. A hurdle is that the vacuum team needs to walk from BA3 to BA5 (2 km). They added that vacuum is now degrading more and more. Following the leak detection that was finished after the FOM, the SPS coordinator informed that it was decided to change a magnet in BA5 on Thursday 11th August in the morning. This intervention is expected to start at 7:00 and cut beam for 16h.

On Sunday, the ZS tripped several times on LHC cycles. It was then decided to fill the LHC with a voltage of -30kV and remove CNGS and North Area beams during LHC fillings until the expert comes back this week. E. Métral, D. Manglunki and M. Lamont reminded that the initial agreement was that the fixed target beams would be turned off during LHC fillings. However the SPS OP team will keep doing its best to give beams to physics in parallel as much as they can. E. Gschwendtner asked if CNGS would also need to be turned off, and D. Manglunki answered that it is not clear yet. In any case the users should be reminded that fixed target beam is not guaranteed during LHC filling.

North Area (E. Gschwendtner):

It has been a very quiet week. A vertical stability issue occurred with the H2 magnets and is being followed up.

Security chain 13 tripped for COMPASS. A door was forced as it was locked due to a mechanical problem. Furthermore COMPASS would be happy to have more intensity.

North Area users (H. Breuker):

NA61 should be finished within a week.

COMPASS: is running with 50 % of the nominal beam intensity.

Other users are switching as planned.

The special summer students session is planned for this month as every year.

CNGS (E. Gschwendtner):

CNGS is doing fine.

CTF3 ():

No report.

TI (J. Nielsen):

Two electrical perturbations occurred but nobody saw them.

LHC interface with injectors (M. Lamont):

It has been an excellent week. Over 2 fb^{-1} have now been accumulated.

Bunch length from SPS was worked on by T. Bohl.

LHC is in production mode and the experiments are reluctant to change the current parameters so that satellites are not needed yet.

The bunch intensity is around 1.25e11 p/b and is slowly being pushed up.

LINAC3 (D. Küchler):

It was difficult to get higher intensities so that the source was stopped on Thursday morning to change the oven. Retuning was done on Friday and good settings were obtained yesterday (25 to 27 µA).

A tank 1 problem is under investigation.

The temperature in the hall was found to be 23 degrees instead of 20 degrees. Additional air conditioning was installed to decrease the temperature.

LEIR (C. Carli)

It was the 1st of two weeks of restart with beam. Beam was accelerated. Issues were found with GFAs. Another issue with cavity 43 was solved. Higher intensity from the Linac generated more losses at capture and this has to be followed up. C. Carli said that 25 to 27 µA is OK for setting up, but would ideally prefer to have more.

PS (Django)

Ion cycles were started this afternoon (without beam).

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

G. Rumolo said that the draft planning for next week's floating MD is out. The machine superintendents were asked for a preliminary list to be presented at the FOM next week.

M. Kowalska asked if the PSB will also be stopped this morning and K. Hanke answered that this last minute stop will also affect the PSB until 11:40 (due to access in the PS).

H. Breuker noticed that the injector MD in Week 33 was increased from 12h to 24h and G. Rumolo added that this was a good time to reallocate 12h injector MDs that had been lost in a previous schedule change.

He also added that this floating MD is transparent for ISOLDE.

4 AOB

V. Chohan warned that transport colleagues would contact the SPS OP team regarding the access this morning.

5 Next meeting

The next meeting will be held on Tuesday, 16th August at 10:00 in 874-1-011.

Preliminary Agenda:

1) Follow-up of the last meeting
2) Status of the machines
3) Preliminary list of interventions for the next technical stop
4) Schedule
5) AOB
6) Next agenda

Minutes edited by B. Salvant

with the help of reports from machine supervisors