Minutes of the 27th FOM meeting held on 02.08.2011

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 26th FOM meeting were approved.

Follow-up from the last FOM:

Pending actions:

Problems with POPS (3 actions)

Studies will be resumed when POPS is back. Actions not closed.

Decide on the restart date of POPS

It was decided that the restart of POPS is scheduled to start on Thursday August 4th at 09:00 in the morning, but the exact start time will depend on the status of the LHC. The intervention will take 6 to 8h. Action closed.

2 Status of the machines

LINAC2 (R. Scrivens):

It was a quiet week.

There is a leak at the Linac and LEIR demineralized water station since Monday. The leak is not critical but the source has not yet been found. A tunnel access is therefore requested. It was observed that more trips due to water interlocks have happened this week and this may be correlated to the leak.

PSB (A. Findlay):

It was a busy week in particular following the recent deployment of InCA. There has been very good support from InCA team, but there is still a lot to do.

The new archiving system was tested. A bug was found as the GFA functions were not properly converted from the old system to the new system. This has been followed up by CO and the system has been tested and is now working. Besides, the ability to change the particle type has been removed from the timing system and the archive for ions cannot be correctly loaded. This is followed up by CO. On Thursday, a much simpler way to choose the archive to be reloaded was implemented.

That same day, everything was ready for the Linac3 line measurements. The Linac settings are now in the archive.

A regulation card on septum 15 was changed on Thursday (20 min downtime). It was agreed that the Oasis connexion will be repaired at the next technical stop. During the week end, septum problems continued and on Monday the specialist found that the door to the hall was left open, which was affecting proper air conditioning. The door was closed, and it has worked since then.

On Friday, the beam stopper went in without reason but could be reset.

On Monday the multipoles all went off causing losses for all the high intensity users. The EPC piquet discovered that the interlock rack circuit breaker had tripped. Although they are not the responsible team for this rack, they reset the circuit breaker and the beam condition was back after 2h downtime.

ISOLDE (D. Voulot):

It was a good week with setting up for HRS and Rex for MINIBALL, and GPS setting up in the evenings.

The run started on Friday for HRS. A failure of the HT supply of HRS required its exchange on Saturday. It is believed there is a leak in the target but it was decided to leave the target there until the end of the run and the next target exchange.

ISOLDE users (M. Kowalska):

It has been a reasonably good week. HRS would appreciate getting as many pulses as possible with the highest possible intensity per pulse as the target is degrading.

PS (S. Gilardoni):

There was no major problem this week.

On Wednesday 40 min were lost due to an IT network problem. A. Bland explained that the router was overloaded and no correct network traffic could take place. This has happened before and it needs a fix from HP. On Monday before the next technical stop (i.e. during the dedicated MD time), A. Bland is proposing to move the access system to another router. He added it should be transparent for the MD.

On Thursday the injection trajectories for almost all beams were wrong and the BT and BTP lines needed to be resteered. The reason for this issue is not understood. It took some time to come back to normal conditions and the high losses combined with issues of the septum 15 in PSB caused high radiation levels on the Route Goward.

On Sunday the kickers in TT2 were pulsing badly. The main issue here is that no expert could be found and the group leader had to be called (as mentioned in the procedure). An ABT colleague was sent but could not solve the problem. Higher losses at injection had to be accepted until the intervention of the expert on Monday.

Extraction septum 57 for slow extraction was tripping and it was observed that large losses seem to increase the number of trips.

High Bfield fluctuations (up to 2 Gauss) were observed. The magnet group is following this up.

On MTE, BI managed to recover the settings lost for the MTE user. The tests on the hybrid-MTE (with CT elements) were resumed, since now the trajectory measurement is considered again operational up to 14 GeV/c.

East Area ():

No report.

East Area Users (H. Breuker):

IRRAD in T7 only made a few hours of test run, even though it should have started on Thursday.

H. Breuker reminded that beam should be given in one more spill to DIRAC. Others are running fine. No major problem.

TOF (H. Breuker):

TOF is doing excellent.

AD (C. Oliveira):

After the vacuum issue mentioned at the last FOM, beam could be delivered again on Tuesday evening. In total 11.5 days were lost.

An access was granted to install an additional pump on the injection septum to fix the problem until a permanent fix is implemented during the shutdown.

On Thursday First Line fixed an injection line power supply (2h downtime).

AD Users (H. Breuker):

B. Lefort was appointed AD safety officer. ALPHA and ATRAP are running without minor problems. The new AEGIS control room was ready and experiments are being installed. One of the ASACUSA paper was published in Nature (mass of antiproton to 1ppb). It is mentioned that the mass of the antiproton is so far the same as the proton mass.

SPS (E. Métral for K. Cornelis):

It was a quiet week.

The beam is now sent to LHC without transverse emittance blow up. Transverse emittances of the extracted beam to LHC are now 1.5 to 1.7 mm.mrad (norm. rms).

A floating MD was performed on the blow up of the transverse emittances and parallel MDs on Q20 and Q26 with single bunches with very high intensity.

J. Borburgh commented on the vacuum activity on the MKP kickers. The group is looking at what really happened and fears it is beam induced. Increased radiation levels were observed in the MKP area and this would require a long intervention. This radiation may also have an impact on the cables. Scrubbing is not confirmed, but E. Métral said K. Cornelis reported that conditioning helps.

The availability for fixed target physics was 94% during the last week. The only problems were the traditional failures with NA access system (chain 11) where the piquet had to be called in to reset the system and a problem with TRX8 (stopping all beams) on Sunday evening.

North Area (L. Gatignon):

No report

North Area users (H. Breuker):

H2: physics for NA61.

H4: CMS ECAL gave two days to LHCb

H6 and H8: new users (improvement of the muon system for Atlas).

Compass is doing fine

CNGS ():

No report.

CTF3 ():

No report.

TI (P. Sollander):

A few electrical perturbations occurred. There was only one stop for injectors, which lasted only a few minutes.

LHC interface with injectors (M. Lamont):

The removal of blow up in the SPS enabled to reach as low as 1.9 mm.mrad transverse emittances in collisions, which is remarkable. The beams are observed to be a lot cleaner now.

Unfortunately the operation was fractured by several issues (injection kickers, SEU for cryo). These issues are thought to be luminosity driven, and luminosity will therefore not be pushed too hard for the time being.

LINAC3 (R. Scrivens):

The PSB team managed to put ions in the LBS line. The debuncher cavity is being set up.

LEIR (M.E. Angoletta)

It was a dense but positive week.

LEIR is now trying to take beam after a dense cold checkout. CO problems are being followed up. The new Vistar should be ready in 2 days. LEIR is also concerned by the water leak mentioned by R. Scrivens in the LINAC2 report. The BI dry run was successful. A solution was found for the transverse damper problem.

The RF cavity 43 does not work. Experts are working on it but the restart should happen with cavity 41 (low level RF needs to be setup and servo loops are now ok).

Yesterday morning, the patrol for beam permit was done and beam could be captured and accelerated. There is a problem with the steering dipole (worked on by EPC piquet).

LEIR is on schedule. L. Soby said that it is important that the Vistar works for the instrumentation.

3 Schedule / Supercycle / MD planning

The 2011 schedule (V3.1) 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

The return of the POPS

J.P. Burnet suggested at the last FOM to switch back to POPS this week Thursday.

He added the switch can start from 8am to 3pm (depending on LHC filling). Following promising results on the PS reference magnet in which the voltage noise was drastically reduced thanks to new filters, S. Gilardoni asked whether the noise frequencies had changed as resonant behavior could pop up. L. Jensen mentioned that the BI expert for the tune measurement is unfortunately not around. J.P. Burnet said that with the modification, he expects we should be in the same conditions as with the MPS. If not, he suggests switching back to the MPS.

The FOM endorsed the switch back to POPS on Thursday.

H. Breuker said it would be nice to have a more precise time for the beam stop. The plan is to start at 9am. If the LHC is still filling, this will be completed. There is some worry that the PS tune measurement will not work. S. Gilardoni proposed as an alternative solution to use the trajectory measurement instead of the tune if the tune measurement is not working.

It was decided that the intervention is scheduled to start at 09:00 in the morning, but the exact start time will depend on the status of the LHC. The intervention will last between 6 and 8 hours. In the first part of the intervention there is limited possibility for access to the machines. However at some point the PS will want to take beam in order to validate the correct functioning of the POPS, and this has priority.

The Linac2 inflector zone access can be done during the first part of the POPS intervention as long as it does not exceed the planned 2h without beam. A number of other interventions have been arranged in the shadow of the POPS intervention after the FOM meeting. M. Kowalska said that ISOLDE does not request beam on Thursday anyway.

Call for list of interventions for the next technical stop in w35.

Due to the holiday period requests will be collected well in advance. The machine superintendents will send the call this week.

4 AOB

H. Breuker mentioned that the ion physics NA61 run should start right after the MD in week 45 on November 10th (written in EATM minutes) instead of on November 17th as currently indicated in the injector schedule. M. Lamont noted that the first days of the run will not be very efficient for NA61. D. Manglunki said that the stop for proton physics will occur on Monday November 7th and that it would make more sense to indicate this in the injector schedule instead of the ion physics start, as the proton physics will not be restarted after the MD in week 45.

T. Eriksson asked if the MD will be transparent to other users and G. Rumolo answered that it will depend on the supercycle.

5 Next meeting

The next meeting will be held on Tuesday, 9th August at 10:00 in 874-1-011.

Preliminary Agenda:

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Minutes edited by B. Salvant