Minutes of the 18th FOM meeting held on 31.05.2011

Agenda:

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

1 Follow-up of the last meeting

The minutes of the 18th 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.

Identify someone to comment the Major Event Reports for the SPS and LHC

K. Hanke will bring this up at the OP section leaders meeting. Action not closed.

Clarify responsibility for the PS splitter at the IEFC

K. Hanke said he will mention this issue at the next IEFC. Action not closed.

Impact of breakdown of TAX motors on the North Area schedule

The intervention on the M2 TAX-1 was successful and the collective dose was within the levels given at the ALARA committee. The new North Area schedule has been released by H. Breuker. Action closed.

2 Status of the machines

LINAC2 (G. Bellodi):

It was a very good week for LINAC2.

Besides the 1 h beam lost due to LA1.QDN27S already reported last week, a reset needed to be sent on Wednesday as the watchdog had been cutting the ZERO user for 1.5 h.

The source gas flow was reduced to check the stability of the source (from 3.7 ml to 3.5 ml) but missing pulses occurred, and they reverted to initial settings.

PSB (G. Rumolo):

It was an excellent week for the PSB.

The only noticeable event occurred yesterday evening, when losses affected ring 4 during 1 h. The feedback specialist found that an RF signal was not connected to the TFB-R4 (bad connector).

ISOLDE (E. Piselli):

GPS is running fine.

On HRS there were recurrent problems to tune the RFQ. The transmission went down to 50% and even 25% on Friday, which is unworkable. The beam is unstable after the RFQ. It will be opened up in 15 days as an insulator needs to be changed. K. Hanke said that it is urgent to solve the RFQ issue as it may stop HRS experiments at any moment.

ISOLDE users (M. Kowalska):

M. Kowalska sent a detailed report:

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- GPS target last week: after further yield-checks and ion source retuning on Wednesday, Mossbauer spectroscopy on cobalt became possible and the South-African group prepared all planned samples; Guilherme&co tried working with 48Cr, but 48Ca contamination was still too strong; however, they performed measurements on copper, which turns out to open many possibilities for the future; so the solid state physics run was to a large extent successful.

- HRS target last week (UC-Ta): mass measurements on neutron-rich astatine isotopes with ISOLTRAP; only partial yields possible, but showed 2 orders of magnitude more beam than 1 week before with ThC; ISOLTRAP tried cleaning francium contamination, which was several orders of magnitude stronger, but with our present efficiency we haven’t seen any astatine in our trap; 196At was also not detected in the trap; measured 228Fr instead

This week:

HRS: use the same target as last week, but to deliver 188,190Pb to MINIBALL; proton scan and yield checks planned on Wednesday (so RILIS ready for Wednesday afternoon); physics starts on Wednesday evening and continues into next week.

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PS (R. Steerenberg):

It was a good week for the PS. There were only a few minor faults.

On Tuesday the BI team upgraded the front end of the nTOF transformer, but did not communicate this upgrade to the CCC. This caused 2 hours without nTOF beam and 1h perturbation.

Loss tests were performed with RP in TT2. M. Widorski said there is a need for an access in TT2 today or tomorrow (10 to 15 min max). See “Schedule”.

On Sunday the video server for the access system was down and was temporarily fixed.

A cooling water fault of the MPS caused a 1.5h downtime yesterday. A faulty water level detector had to be replaced.

During the week a lot of systematic fast wire scanner measurements were performed to solve some of the issues observed with the PS wire scanners.

On MTE, measurements of the trajectory were performed with the pencil beam kicked in one of the islands. The fluctuations observed were enormous and it appears that the orbit measurement system on H16 suffers from a random loss of the synchronisation of the gate. The gate was adjusted last week, and now it seems there are no fluctuations anymore. This means that all previous measurements are not reliable and the MTE study lost months of work. The real orbit problem needs to be solved by updating the firmware and it is not clear when that will be done. L. Soby said the firmware upgrade is foreseen for the summer. This upgrade should be done during the TS.

B. Mikulec asked whether this issue hampered MTE a lot. S. Gilardoni answered that all March measurements showing fluctuation are wrong and added that synchronization of the gate with the bunch is not guaranteed for H16.

East Area (L. Gatignon):

A water leak was found last Thursday next to the IRRAD facility. This leak was repaired and the floor was dried. A second leak was suspected, but it has stayed dried since.

On Sunday the Piquet Firstline fixed a trip of F61.BHZ01 (less than 2h lost), but otherwise it was stable running for the East Area.

East Area Users (H. Breuker)

DIRAC has problems with setting up and did not take beam yet and beam was given to IRRAD instead. CLOUD will start up in 2 weeks, already many people are there.

TOF (H. Breuker):

TOF is running fine.

AD (B. Dupuy):

Instabilities were observed on beams extracted to ALPHA and ASACUSA between Monday and Thursday. On Thursday, Firstline changed a monitoring of a ring power supply.

A loss monitor was displaced by RP.

ASACUSA was also perturbed by the installation of the access system.

There is no special breakdown to report, besides a bad timing connection that affected the stochastic cooling on Saturday afternoon (3h stop). This issue seems to be solved now.

AD Users (H. Breuker):

No special complaints from users.

ACE is installing a special tool.

SPS (E. Métral):

The SPS continued to deliver a lot of beam to CNGS and to LHC (LHC50 in 3 batches). LHC50 in 4 batches could be sent to LHC today or tomorrow.

It was noticed that the RBIH.660107 for HiRadMat seems to perturb the trajectories in TI2 (through an electric coupling not magnetic coupling). M. Lamont confirmed that limits for the trajectory are quite tight.

On Wednesday, the intervention for the AUG in BA7 was completed. The access procedure in BA7 is now back to normal.

On Thursday, losses occurred at the start of the ramp and at the end of the ramp for CNGS beam. Many checks were performed and the issue turned out to be difficult to diagnose, before being tracked to a problem with the main dipole station SMD3. A small power supply of the card sending a reference was not working properly. This issue stopped the CNGS beam during the whole night.

During the week-end, calibration measurements were performed on the wire scanners 41677H and V.

SFTPRO beam is back and the injection tests are ongoing.

E. Métral said he thinks there should be no further need to push beam quality in injectors for LHC as issues seem to occur in LHC.

Besides, several MDs also took place last week. On Monday, previous transverse emittance measurements of the nominal 4 batches of 25 ns were confirmed (between 2.5 and 3 mm.mrad), this time with the correct gating. On Tuesday, the dependence of FBCT on bunch length and transverse position was studied. The floating MD in coast was devoted to collimator phase II tests and emittance growth observations in view of the possibility of installing a crab cavity to check emittance growth for LHC. For the latter, small losses but an emittance growth of 10-20 micron/day were observed. This emittance growth is believed to be due an external excitation that can be observed on the Qmeter.

North Area (L. Gatignon)

Intervention to move the TAX of Compass last Thursday was successful.

The access system reconfiguration was completed yesterday.

DSO tests started yesterday and were completed successfully.

Some interventions remain be performed today and tomorrow morning (collimator repair and water leak).

The plan is to start extracting beam to TCC2 over the long weekend. Beam line set up on secondary beam is planned to start on June 6th and be completed by June 8th.

North Area users (H. Breuker)

The damage was limited (4 weeks). The new user schedule is available.

CNGS (E. Gschwendtner)

CNGS is running fine, above the line.

CTF3 (S. Pasinelli):

In the beginning of the week, optimization was performed for the RF, the LINAC and the bunch compression. Recombination in the combiner ring is underway. On Friday, fluctuations of the RF water cooling temperature lead to beam instability. Experts could decrease these fluctuations to suppress the instability.

The plan is to continue to work on the combiner ring and to send beam to CLEX.

TI (E. Liénard):

Two major events occurred: yesterday evening's MPS problem and an electrical disturbance on the French network (most likely thunderstorm or bird, waiting for EDF report).

LHC interface with injectors (M. Lamont):

LHC is going well. More than 1000 bunches are stored now. Emittance blow up are seen at injection on some trains.

3 Schedule / Supercycle / MD planning

The 2011 schedule (V2.0) 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

M. Lamont presented a new version of the schedules (LHC and LHC injectors).

LHC schedule:

The technical stop moved to week 27 (4 July) for both a VIP visit and a longer run for experiments before the summer conferences. This is a 5 day technical stop with a recovery day on Saturday, preceded by 5 days of MD.

This means a technical stop is lost. This should be the outline for 2012 as well. These changes also affect the ion schedule.

This version was not approved at LMC but should be this week.

LHC injectors:

The technical stop is moved from week 25 to week 27. The other technical stop is also moved. No MDs are lost, but they are moved around.

Two comments were mentioned at the MSWG, but the MD dates actually do not coincide with IPAC. For the invited people from SLAC to the MD, this has to be seen with Wolfgang.

The technical stop in week 45 could actually range from 12h to 36h and another technical stop of 12 hours can be found if necessary.

Before the meeting, V. Prieto sent an email to request to go in the machines 1 week before technical stops to be more efficient during the technical stop.

For the request of M. Widorski to go in TT2, (which means cutting beams for AD, nTOF and SPS), this could occur at the change of experiments at 15:00 this afternoon, provided the LHC does not need to fill. This will have to be discussed with nTOF.

4 AOB

F. Tarita said that there is a plan to check on EDF faulty cables tomorrow. This could perturb the SPS (1 hour stop). This was discussed yesterday. F. Tarita said it is important to check these to start the repair.
This intervention should not occur during LHC filling. EDF is coming over tomorrow from 9:00 and will be in touch with operators to wait for the right window. They should confirm with the CCC that LHC has stable beams. The access to TT2 for M. Widorski will be given at the same time.

5 Next meeting

The next meeting will be held on Tuesday, 7th June at 10:00 in 874-1-011.

Preliminary Agenda:

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Minutes edited by B. Salvant