Minutes of the 16th FOM meeting held on 17.05.2011

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 15th FOM meeting were approved.

Follow-up from the last FOM:

1.1 Pending actions:

Problems with POPS (3 actions)

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

Make the orbit measurement system work with the presently defined user files (PS supervisor/BI)

S. Bart Pedersen said that work was done. After the meeting, G. Métral confirmed that the orbit measurement works. Action closed.

Wire scanners that stay stuck in IN position

S. Bart Pedersen said that the problem was solved by A. Guerrero. For the systematic error of the wire scanner measurement, S. Bart commented that beam size were stable while the emittance was not, pointing towards an issue with the parameters used in the post-processing from the beam size to the emittance. Action closed.

Impact of breakdown of TAX motors on the North Area schedule

L. Gatignon said the ALARA committee is planned for this Friday. A planning is currently worked on but more information is needed. H. Breuker will have to find a suitable plan with the users. Action not closed.

2 Status of the machines

LINAC2 (R. Scrivens):

The technical stop work was completed on Tuesday.

Upon restart, a PLC module in the RF system failed due to high noise on interlock cables, which was tracked to a spark in tank 3 modulator cable at low RF levels, which could be due to HOM generated in the RF system. More tests will be done, in particular at the occasion of the next technical stop.

LINAC2 is running out of PLC modules and the EN-ICE piquet was kind to lend a few extra modules.

Yesterday sparking occurred across an insulator on the gas line of the source. Higher gas flow helps mitigating the sparking, but the insulator is being replaced at the moment of the meeting and pumping down will need about 4 hours before operation restarts again.
From the errors on the screens, the SIS watchdog was first suspected and the operator called the piquet Controls. This issue should be resolved. K. Kostro said they will try to improve the diagnostics. B. Mikulec added that the many red messages in the watchdog should have been cleared to help the operators understand the issue. This will be followed up.

Following a meeting in which the startup of LINAC3 was discussed, D. Küchler sent the ion run planning. In particular, the source/Linac3 will be started on June 13th, 2011. D. Küchler asked if this date could be integrated in the next version of the injector schedule. The source/linac period includes 4 weeks of source MDs.

PSB (B. Mikulec):

It was a busy week for the Booster.

Special MD requests for the SPS MD were handled as well as technical stop activities.

Hardware and software problems occurred with the extraction kicker.

The LHC50 single batch beam was optimised by S. Hancock.

On Sunday early morning, a problem on ring 3 occurred for the CNGS beam. The low level RF piquet made a lot of changes and could improve the situation on the CNGS beam. However since then, there are problems for all other beams.

Transverse emittances in ring 4 could not be measured. This is worked on by J. Emery, but there are still issues with combinations of filters and speeds. This is in discussion with BI and will be followed up outside of this meeting.

ISOLDE (P. Fernier)

GPS and HRS are running.

GPS (40 kV): after the setup, beam was given to users from Friday. The physicists said they were satisfied.

HRS (40 kV): run started on Wednesday on line LA1. There was beam on Friday until today. From Monday, degassing and high voltage spikes occurred in the target. There was also a problem with the separator (one day delay) and issues with the RFQ (high voltage flashovers). The gas injection needs to be modified. The RFQ failure is intermittent, which makes it difficult to diagnose the problem. T. Giles suggested introducing a micro camera to see where spikes occur. RFQ flashovers did not occur since Monday morning, when they occurred every night during the week end. It is proposed to run at least until June 8th. An intervention of 15 days will be planned between June 8th and 20th.

B. Mikulec asked whether there is a risk for more damage if the run continues despite the flashovers. P. Fernier answered that this would mean stopping physics.

S. Hutchins said that the valve issue (see last week minutes) is being followed up by the BE RSO.

ISOLDE users:

In the absence of M. Kowalska, P. Fernier said that GPS physics run is above expectations, and HRS is in time.

PS (S. Gilardoni):

It has been a good week for the PS.

After the technical stop, the PS could not restart due to problem with a power converter of the extraction bump. This was solved by the EPC piquet. In addition, the RF piquet was called for an issue with the splitting for CNGS beam.

The F61 problem mentioned at last week's FOM was solved at the expense of a collective dose of 200 µSv. In agreement with V. Mertens, the team of J. Borburgh (ABT) accepted to intervene on the equipment to adjust the gap in the correct position, without any particular knowledge of the equipment. S. Gilardoni stated again that the responsibility of this equipment should be clarified between ABT, magnets and BI. M. Gruwe said that the intervention would have required a DIMR (Dossier d'Intervention en Milieu Radioactif) and suggested to present how to do a DIMR at the FOM. M. Widorski said that the main problem was that it was not on the list of interventions and that RP was not contacted. R. Steerenberg said that it unfortunately was a breakdown situation and a special case, as the intervention was done without knowledge of the equipment. J. Borburgh pointed out that the first part of the intervention was anyway not avoidable. It was agreed by everyone that RP should be contacted in these emergency situations (to be also on site) and that other equipments for which the responsibility is not clear should be identified to prevent such situations to come up in the future. R. Steerenberg mentioned that this splitter may be replaced by a normal magnet in the future as it is not needed anymore. Finally, it was agreed that the presentation of DIMR requested by M. Gruwe should not be done at the FOM.

S. Hancock and H. Damerau improved the bunch splitting of LHC type beams (except LHC25, which is planned to be done this week).

LHC50 double batch was delivered to the SPS for MDs with intensities beyond nominal. Issues with measured transverse emittances will be followed up with BI.

There were several problems during MTE studies (pickup synchronization, kicker strength) that need to be solved.

East Area (L. Gatignon):

Thanks to ABT, the splitter was fixed. The north branch is running smoothly. DIRAC has not started yet.

East Area users (H. Breuker):

DIRAC hopes to restart on Friday.

Experiment in T9 finishes by Saturday. ALICE wants to continue for one more week.

TOF (H. Breuker):

Happy users.

AD (T. Eriksson):

Machine is running well.

Over 90% performance is obtained (3.6e7 out of 4e7 are sent in the beam line).

During the technical stop, polarity checks in ejection line and ring magnet verifications were performed as there had been problems to validate the optics. All seemed normal.

On Wed at 3am, fluctuations on beam intensity were observed. The piquet Controls solved a timing problem in ASACUSA. Several radiation alarms were triggered by adjustments on radiation monitors view of the declassification of AD hall.

On Thursday morning the magnetic horn went down and was fixed by the specialist.

No other fault until this morning.

T. Eriksson mentioned that the AD regularly asks the PS crew to increase the number of AD cycles in spare in the supercycle to avoid waste of beam time. The number of AD cycles could often be increased by 50%. The problem is that users do not think to call in the night to increase the number of AD cycles when it is possible, and this is why this should be more automatic. S. Gilardoni said that the PS operators are reminded that they should increase the number of AD cycles when they can.

K. Hanke asked if the long bunches cause problems. T. Eriksson answered that ASACUSA did not complain yet.

AD Users (H. Breuker):

There are no news from ATRAP. There was a helium leak at ALPHA. ASACUSA is doing fine.

SPS (K. Cornelis):

A quadrupole was changed during the technical stop. It was needed to realign it during the night by 0.55 mm (downward).

SPS MDs continued and were successful with nice bright beams.

The week end was rather smooth.

An emergency stop unit in TI2 failed and stopped beams to LHC until it was bypassed. This meant no work can be done in that area until it is fixed. It is now OK to work in BA7 but not in TI2. Hence the repair of the AUG needs to be done.

Over the week end, failures in polarity switches occurred in power supplies. They were put on local and the issue was fixed yesterday.

North Area (L. Gatignon)

More news will be given by the end of the week. In particular, the plan is to assess the impact on the schedule. This will be discussed at the IEFC.

North Area users (H. Breuker)

H. Breuker will have to reshuffle the users. There are no news from the users' side so far.

CNGS

K. Cornelis said that CNGS is profiting well from the delay of North area. The accumulated intensity is now above 1.6e19 pot.

CTF3:

No news were given during the meeting.

After the meeting, F. Tecker reported that the gun works well now. Beam was established again in the combiner ring up to the TL2 transfer line.

TI (P. Sollander):

A number of electrical perturbations occurred last week, but there was minimum downtime and no damage.

LHC interface with injectors (M. Lamont):

The LHC technical stop ended on Thursday evening. 26 hours were lost due to a PLC crash and the AUG failure in TI2. Van der Meer scans were performed on Sunday. Now the plan is to step up in intensity with the LHC50. There are still some issues with injections and in particular questions with the SPS scraping. A special run for Totem and alpha is being performed. The LHCINDIV beam in coast allows for the LINAC2 intervention that started this morning.

3 Schedule / Supercycle / MD planning

The 2011 schedule (V2.1) 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

4 AOB

5 Next meeting

The next meeting will be held on Tuesday, 24th May at 10:00 in 874-1-011.

Preliminary Agenda:

1) Follow-up of the last meeting
2) Impact of TAX motor breakdown on North Area schedule
3) Status of the machines
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Minutes edited by B. Salvant