Minutes of the 39th FOM meeting held on 25.10.2011

Agenda:

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

1 Follow-up of the last meeting

The minutes of the 38th FOM meeting were approved.

Follow-up from the last FOM:

Pending actions:

Status of the PS-Bfield fluctuation with POPS

The action is on hold since POPS is not operating. Action not closed.

2 Requests for beam from injectors for LHC MD #4, G. Papotti (slides)

G. Papotti presented the beams that are expected to be used during the last LHC MD block of the year.

B. Salvant said that the TDI MD would also use the high intensity version of LHCINDIV on Tuesday morning.

3 Status of the machines

LINAC2 (G. Bellodi):

It was a very quiet week.

PSB (A. Findlay):

It was a quiet week. As all CPS machines, the PSB needed to be stopped for 3 hours after the glitch on 18kV that damaged the compensator filters.

There was a problem with trajectories between Booster and PS, which was fixed by the specialist for the extraction septum.

A lot of work was done on MD beams and operational users.

ISOLDE (M. Lozano Benito):

It was a good week.

GPS: target 463 Pb-Hp.

HRS: beam to Miniball without problem.

There was a problem during the target change on GPS with the robot calibration. This is being followed up. Bettina said that robot problems have been more frequent recently. The door of the GPS target shelve cannot be opened anymore and the home position pin for the robot seems to be bent. The new robot system is expected to be installed after LS1. The question is if it is acceptable to continue like that until then. Usually the problems have been software or controls issues, but now it is a mechanical problem that requires access to the target zone.

ISOLDE users (M. Kowalska):

It has been an excellent week. It went very well with the new Laser. On GPS, Biophysics and Solid State Physics users were very happy and sharing went very well. They could run all the samples.

PS (S. Gilardoni for G. Métral):

G. Métral sent the report :

« Semaine sans problème majeur.

Le cyclage de démagnétisation du bending du bout de TT2 ne marchait plus. La trajectoire des ions dans TT10 a été perturbée jusqu'à la réparation de cet équipement.

Une modification va être faite par le CO sur le control des Gfas qui servent a piloter les alimentations de la transition. Des cycles MDs nécessitent qu'on puisse passer la transition après C700 sur 1 cycle de 1BP (ce qui n'est pas possible actuellement)

Vendredi, les machines du complexe PS ont du être arrêtées pendant 3H a la demande du service electrique (suite a un glitch sur le secteur qui a endommagé un compensateur)

A la demande de CNGS, le faisceau type LHCINDIV avec 4 bunchs haute intensité a été préparé et est envoyé au SPS depuis la fin de la semaine. »

S. Gilardoni added that yesterday there was a problem with a 10 MHz cavity (C86 or 81). Access might be needed soon if the relay gap breaks.

East Area ():

L. Gatignon wrote that there was nothing to report, apart from the fact that CLOUD should have started on Monday and that beam was ready.

East Area Users (H. Breuker):

On CLOUD, some equipment is missing. CLOUD requests 3 spills and has priority. CNGS is however top priority. S. Gilardoni will transfer this information to the PS operations team.

Yesterday, 5.4 MW was reached (instead of 5 MW maximum allowed). After the meeting, S. Gilardoni checked with J.P. Burnet that 5.4 MW is allowed until the next technical stop.

Normally the supercycle is set such that this limit is not exceeded. This should be followed up.

TOF (H. Breuker):

TOF is fine.

AD (B. Lefort):

It was a smooth week.

There was a problem in the injection line. A timing interface failed and was replaced.

AD Users (H. Breuker):

Nothing to report, all is going well.

AEGIS was supposed to start on 31st Oct. The 1st week of running out of 3 weeks was cancelled. This causes problems in scheduling.

SPS (D. Manglunki):

The setup of the 500 ns LHC type beam with 2.5e11 p/b for CNGS is used since Friday.

On Wednesday, thyristors needed to be replaced in sextupoles power supplies (2 h downtime). In parallel, work was done on the RF low level and on the access system of the North Area. During the night, the piquet and the TE/EPC specialist intervened on the horn power supply.

On Thursday at 22:45pm, a general emergency stop tripped BA4 (false contact in an emergency button). TI operators restarted the beam quickly. An AUG needed a reset and beam was stopped during 14 h for CNGS.

On Friday evening the glitch caused three hours downtime in the CPS.

On Saturday the LHC bunch intensity was increased to 1.5e11 p/b, which resulted in a lot of missed shots by BQM (bunch length). T. Bohl said that the thresholds need to be relaxed as bunches are unstable longitudinally (dipolar and quadrupolar oscillations). As the intensity increase also triggered some ZS sparking, it was decided to turn off the fixed target beams during LHC fillings.

Since an intervention on Friday on the access system, there hasn't been any trip of chain 11.

Today there is a high pile-up MD in LHC with only one cycle, which will limit the number of users while filling the LHC.

North Area ():

No report.

North Area users (H. Breuker):

H4: IRRAD LHC started, but key persons were absent so that only a small intensity beam was sent to T2. Complaints came from H2. S. Mataguez said that the issue was raised on Friday.

H8: TOTEM is getting ready, DREAM and UA9 (ions). The latter cannot get beam before 21st Nov (if primary beam). UA9 would agree to take fragmented beam from Nov. 7th to 21st. However it has to be noted that there is an MD between Nov. 7th and 10th and they could only start on Nov. 11th.

H. Vincke asked about the status of the new BCT in LSS5. The baseline is that there will be no primary ion beam to the North Area before the end of the proton run to avoid sending protons to the North Area. Therefore the new BCT is not needed for this ion run. It is planned to be installed in LS1.

CNGS (H. Breuker):

B. Mikulec said that the intensity per bunch of the 500 ns beam sent to CNGS was actually higher than the 2.5e11 p/b decided at the IEFC of last week, where it has been proposed to wait for target simulations before increasing this limit. M. Lamont pointed out that they were not so worried about the high intensity LHCINDIV-type beam, but more for the 100ns. Now up to 4e11 p/b are sent from the CPS.

The diamond detector will be installed during the next technical stop in the muon pit, with which we want to measure the time structure of the muon spill.

CTF3 ():

No report.

TI (P. Sollander):

Report from P. Sollander to OP weekly status:

« The major event, "Perturbation électrique durant les manoeuvres EDF - SIG" inserted on the 21-OCT-11 has been completed by the main group concerned. This event is now ready for the TIOC approval.

Short description of the event:
Le 21/10/11 à 17h40 les manoeuvres de réalimentation d'un transformateur à Verbois par EDF / SIG perturbent le PSB, PS et LHC. »

LHC interface with injectors (M. Lamont):

Nice running with 1.45e11p/b and luminosity of 3.6e33 s^{-1} cm^{-2}.

There was a special run for TOTEM and ALPHA at 90 m, then 25 ns MD and high pile-up MD.

Satellite bunches is now an official request and Thursday is the best option. S. Hancock reminded that the 25ns user in the PS needs to be corrupted for this purpose. Also the LHC Longitudinal Density Monitor is needed. Hardware would need to be installed for a more permanent use. M. Lamont said that there is need for 1 fill with satellites. The setup could be done on Wednesday if a

cycle with 3BP can be used during the MD with ions. This means that beam will not be given to EAST, TOF and AD in that case, and H. Breuker said that this was not planned. The beam would then be prepared on Thursday in the SPS. The feasibility of this option will be assessed after the meeting. (Remark: The satellite beam has been set up on Wednesday, and the PS users have been informed beforehand that they will not get beam during the ion MD).

IONS

LINAC3 (D. Küchler):

The vacuum problem mentioned last week was not a problem; it was just a matter of tightening a screw.

LEIR may have a lifetime issue of its stripper foil. The foil used for scrubbing should be chosen wisely next time.

The source tripped on Friday and the current is still a bit low.

LEIR (C. Carli)

LEIR is running smoothly.

LEIR can extract about NOMINAL intensity with smaller intensity from LINAC3 thanks to good injection efficiency.

PS (S. Gilardoni)

Transparent.

SPS (D. Manglunki)

The intensity of the "nominal" beam (4 bunch, 100 ns spacing) was reached early this week. (1.2e8 i/b at flat top, above design).

This beam will be tried on the long flat bottom during the floating MD as there is a possibility to use it for the run. The plan is to start with INTERMEDIATE 200 ns and to switch after a few days to NOMINAL.

S. Hancock said that it would be good to check 6 injections instead of 12 injections.

The EARLY beam is already available.

4 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

5 Preliminary list of interventions for the next technical stop

The interventions in LINAC2, AD, PSB and LEIR can be found on the webpage:

https://espace.cern.ch/rpps/wdp/Lists/Interventionlist/Active.aspx

AD: only visual inspections.

PSB: inspections. CV wants to stop demineralized water. Lift maintenance should be added.

LEIR: A. Bland said that the switch that posed problem will be changed at 9:30. There will be a stop of 20s, which should be transparent. It will be duly announced.

PS (slides): R. Brown reminded that all magnets should be off in PS ring and TT2.
POPS is planned to be reconnected. Tests will take place from 16:00 to 17:00.
The water stop needs to be synchronized with these power tests.
A new BLM will be put on top of section 16.

SPS (slides):

F. Tarita reminded that galleries will be opened on Tuesday and asked at what time the LHC should be off.

6 AOB

H. Breuker said that more time should be allocated for the preparation of ions for NA61.

7 Next meeting

The next meeting will be held on Tuesday, 1st November at 10:00 in 874-1-011.

Preliminary Agenda:

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

Minutes edited by B. Salvant