

Minutes of the 37th FOM meeting held on 11.10.2011

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 36th 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.

Specifications and planning for the proton-ion run

An offline meeting was organized. K. Hanke provided the [slides](#) with planning and specs for the beams needed. Setting up of the 100 ns beam is under way but it was not completed in the PSB. S. Hancock said that PS expects to start setting up tomorrow. Action closed.

Feasibility study for the switch of star point for the BSM and tomoscope front ends

K. Hanke said that the investigations of A. Bland concluded that the switch of the star point would be a “major bricolage” and not without risks for operation. In addition, the intervention would require stopping measurements at the LINAC4 test stand. As a consequence, it is decided that the network star point move in bldg 152 will be done after December 8, i.e. after the stop of all beams. Action closed.

2 Status of the machines

[LINAC2 \(G. Bellodi\):](#)

It was a quiet week.

A high intensity beam (~175mA) was produced on Monday for MD injection studies in the PSB.

On Tuesday evening LTB.QFW50 went on fault and the piquet power was called to intervene (50 min downtime).

Yesterday evening the second buncher CBU02 tripped again (1.5 h downtime). It is an ongoing problem with the main switch. At the next problem, the main switch of the distribution panel will need to be replaced. K. Hanke suggested that action be taken right away rather than waiting for the next failure. C. Mugnier will arrange for this with G. Bellodi.

PSB (B. Mikulec):

It was a smooth week.

The Linac2 high current MD to see if higher current could result in injecting less turns and thus reducing transverse emittance was not very conclusive (7% intensity increase resulted in a 1 to 3% emittance decrease for LHC25).

An InCA release was done on Wednesday afternoon, and a few resulting problems were solved by the InCA team.

An electrical fault occurred at 07:00 on Wednesday and required a reset of several cavities and a local reset of the MPS by the piquet (1h downtime).

On Thursday the ISOLDE beam stopper entered into the beam. The cause was not understood and it did not come back since then.

On Friday, the RF expert solved an RF jitter problem on SFTPRO.

On Saturday, ring 2 was unavailable during 1 h due to a trip of BI2.QNO60 as an auxiliary power supply needed to be replaced.

On Sunday, the power supply of BTM.QNO5 had to be repaired by the piquet.

On Monday the piquet intervened on BR4.XSK6L1.

A lot of work was devoted to prepare the beams for the LHC MDs (25 ns), for the high intensity single bunch beam, for the LIU beam for E. Métral.

The 100 ns beam was also prepared for ion-proton beams.

ISOLDE (P. Fernier):

It was a good week.

GPS (30 kV via REX for MINIBALL): beam was taken until Thursday afternoon without breakdown.

HRS (30 kV for ISOTRAP): after setting up and proton scan, the beam was available until Monday without interruption.

ISOLDE users (M. Kowalska):

The schedule had been shifted by 3 days on GPS.

The new scheme on HRS is running fine. It was a very good week for the users.

PS (R. Steerenberg):

It was smooth running with only minor problems.

The 10 MHz cavity situation has improved. However cavity C81 still trips. C. Rossi said that it was the one for which the amplifier was replaced but it did not help.

On Tuesday, the MPS tripped and could not be reset. The circuit breaker was fixed by the power specialist.

On Friday, there were problems controlling equipments (ZT8.DHZ01 and DVT01).

The goal for nTOF was reached on Friday night, thanks to higher availability (93%) and continuous optimization. nTOF will continue using the lower intensity but it will increase soon to nominal (end of October).

A quadrupole in the TT2 line used for ions trips regularly. Repairs were already made. Dedicated time is needed to adjust and test (1.5 h), to be found in the shadow of another stop.

East Area (L. Gatignon):

It is fine.

A gas alarm occurred yesterday, which cut the power. A circuit breaker needs to be fixed

East Area Users (H. Breuker):

People are working in the CLOUD area.

TOF (H. Breuker):

The spokesman of nTOF thanks the operation team.

AD (B. Lefort):

AD achieved improvement of the deceleration efficiency. It was a good week.

AD Users (H. Breuker):

Users are fine.

SPS (D. Manglunki):

The MD beams were produced (25 ns spacing and high intensity single bunch which reached 2.2×10^{11} p/b).

On Wednesday morning there was a vacuum leak on the TED in TI2. After repair and pump down, it was operational the next day at noon.

On Thursday there was a glitch on the electrical network. Beam was available 1h15min later. The glitch caused a breakdown of the movement of the CNGS plugs. An intervention is planned for the next technical stop. An access is needed and will happen on Thursday during the MD.

On Saturday a high voltage supply for the BLMs in LSS5 tripped. The BLMs were masked (it was decided it was safe as no UA9 or scraper was in) and the intervention took place.

On Sunday morning the piquet was called for a problem on the MKE6 (2.5 h downtime). Later the chain 11 tripped on a communication fault. The operation team is well trained now and beam was back quickly.

In the evening, the piquet had to change 3 tubes on transmitter TRX6.

LHC fillings are now done without Pb ion cycle in the SPS supercycle as it was checked that it was not necessary anymore. This allows for more production to CNGS. Now the nominal current is used on both the horn and reflector. CNGS protons on target are 6% above the line.

North Area (L. Gatignon):

Nothing to report.

North Area users (H. Breuker):

H2: CREAM is finishing.

H4: CMS ECAL (low energy electrons).

H8: French fraction of CALICE.

COMPASS is running smoothly.

CNGS (E. Gschwendtner):

There is an access planned to install diagnostics for muon time measurements.

The nominal aim was reached and E. Gschwendtner forwards thanks to the operations team.

CTF3 ():

No report.

TI (P. Sollander):

Power cut on Wednesday: The report from EDF was received and it was a short circuit on the 400 kV network (3% voltage dip during 6 ms).

LHC interface with injectors (Mike):

A vacuum leak from TED in TI2 caused a long downtime.

MDs last week with 25 ns beam showed electron cloud and vacuum activity, with nominal 288 bunches injected up to 700 bunches.

Yesterday, the high pile up MD occurred. 30 collisions per IP were achieved instead of a typical number of collisions of 20-22 during physics fills.

On Friday, the 25 ns beam will be taken again for an MD.

IONS

LINAC3 (D. Küchler):

No problems to report. Inca WorkingSets were installed on Wednesday.

A current of 20-22 μA was produced.

LEIR (S. Pasinelli)

On Tuesday, a water leak at the electron cooler was detected. An intervention should be planned and Friday was suggested.

Following the glitch the source and some LEIR elements tripped.

PS (Rende)

Nothing to mention besides the quadrupole trip in TT2.

SPS (D. Manglunki)

Ion beam was taken again on Friday after the quad in TT2 was fixed.

Next MD will be on Wednesday. D. Manglunki reminded that the MD will use all the cycles in the PS.

3 Schedule / Supercycle / MD planning

The 2011 schedule (V3.5) 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 MD starts at 8 a.m. on Wednesday and ends at 6 p.m. on Friday.

The planning is ion MD tomorrow, then collimation, then UA9, then 25 ns.

The question was asked whether the refill could be advanced from Monday to Friday. D. Manglunki will see with D. Küchler.

4 AOB

5 Next meeting

The next meeting will be held on Tuesday, 18th October at 10:00 in 874-1-011.

Preliminary Agenda:

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Minutes edited by B. Salvant