

Minutes of the 6th FOM meeting held on 12.02.2013

Agenda:

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

1 Follow-up of the last meeting

The minutes of the 5th FOM meeting were approved.

Pending actions:

There are no pending actions.

Linac2 ():

There was no report. K. Hanke reported that Linac2 had been regularly providing beam all along the week.

Linac3 ():

D. Kuchler sent an email before the FOM meeting reporting that Linac3 ran with good beam intensity. Only this morning (Tuesday, 12th February) the beam intensity dropped and an intervention was needed. The source will be switched off on Wednesday 13th February and the full machine will be switched off starting from Saturday 16th February.¹

PSB (G. Rumolo):

It was a very good week for the PSB. There were MDs for the YASP validation in the PSB and measurements of the PU turn by turn data. Some time was spent for the preparation of the LHC 50 ns beam and for the LHDINDIV used during the LHC Van der Meer scans. The machine will be switched off on Saturday morning at 06h00 (16th February).

LEIR (C. Carli):

¹ After the meeting it was decided that D. Kuchler will make his consigne to the Saturday morning CCC shift (16th February) in order to switch off part of the Linac3 hardware. He will personally switch off the rest of the Linac3 on the next Monday (18th February).

LEIR provided the required beams with good performance over the whole week. A slight reduction of available intensity occurred over the last week-end due to a problem with function generator for a quadrupole. This problem was similar to the one already encountered during the previous weekend therefore its detection was relatively easier.

Minor technical problems have been encountered (main quadrupole power converters, B-train crate...) causing short down times.

PS (S. Gilardoni):

The PS had a very nice week without any serious issue. It delivered ion and proton beams on request.

On Wednesday (30th January) the RF experts could identify one of the reasons for the missing ion pulses, particularly deleterious during the LHC filling. The relay that switches ON and OFF the sensitive pickup for the protection of the low-intensity beam control was not acting correctly. This was the cause of the intermittent beam losses at the beginning of the PS acceleration. The event was rare, causing a few missing pulses during a couple of hours. D. Manglunki asked if this was the main source of the problem during the LHC ion filling. S. Gilardoni answered that the impact of the PS was relatively marginal (5 pulses missed in the all afternoon) and that the origin of problem may be traced back in the interplay of this specific PS issue with other issues in LEIR and SPS.

Since Thursday (31st January) PS resumed the Hybrid-MTE tests, thanks also to ABT who accepted to leave the CT elements available until the end of the run. A low intensity pencil-like beam is being used to limit beam losses.

On Friday (1st February) a new extraction bump was used for the fixed target ion beam. This change was done to test a new extraction bump closure without using one of the high-energy correctors. The detailed analysis of the beam performance will be done later, but from the operational point of view the beams look similar to the ones with the previous extraction bump. Also on Friday the recovery of the proton beams requested for the LHC physics run was finalized. In addition, high intensity single bunch LHC-type beam was delivered to the SPS for MDs.

SPS (D. Manglunki):

It was a good week for the SPS, delivering p and Pb beams to the LHC, and Be (from fragmented Pb) beams at 13 AGeV/c to the North Area. During the whole week, MDs took place with protons for impedance localizations and with Pb ions for the debunching studies in order to prepare for the 2015 Ar run.

On Wednesday at 12:45 the main power supply tripped due to a water fault, caused by a PLC communication problem (3 h 11 min down time). The switch to SMD1 was thus delayed and still needs to take place next week. S. Deval commented that the origin of the problem was a consequence of a GS intervention.

On Friday, the 50 ns proton beam was prepared in order to be ready for the 1.38 TeV p-p LHC run.

On Sunday morning the LHC p-Pb run ended. The SPS prepared the INDIV proton beam and started delivering it to the LHC in the afternoon.

M. Lamont informed that there was a problem on the LHCINDIV (large emittances) and the Van der Meer scan had to be abandoned. K. Hanke commented that the injectors were not informed about it so they could not react to the problem.

North Area (H. Breuker and A. Fabich):

The NA61 beryllium scan is finished.

The NUCLEON experiment is happy about the run extension accepted by the IEFEC.

LHC interface with injectors (M. Lamont):

It was a rocky start of the week with losses during the squeeze following the ion direction change. Issues were finally solved and eventually over 30 nb^{-1} were delivered to ALICE, CMS and ATLAS by Sunday 06:00. The experiments are satisfied of the result and acknowledge all the people that make it possible to happen.

A run extension was granted Wednesday evening and LHC will have a p-p 1.38 TeV run until Thursday morning (at 06h00) followed by quench tests until 06h00 on Saturday (16 February) ².

CTF3 (P. Skowronski):

There were problems during the restart of klystron 11. This issue blocked from having beam further than the middle of the CTF3 Linac. The problem seems understood for the moment.

Yesterday (Monday 11th February), there was an accidental trip of the CTF3-Linac but klystron MKS02 and the TWTs for sub-harmonic bunching did not trip as they should even if the safety chain was tested at the end of January and it worked as expected. The klystron was locked out, the TWTs were unplugged and the fuses were tripped. CTF3 OP contacted CPS OP by phone and e-mail asking not to reset the CTF3 Linac chain since nobody can be sent to the hall before testing again the safety chain. K. Hanke added that, since the FOM will be resumed only in 2014, the follow up of this problem is under the responsibility of CTF3 OP.

TI 0:

There was no report.

² After the FOM meeting, and extension of the run was granted. The complex will stop on Saturday 16 February at 09h00 (instead of at 06h00).

2 Schedule / Supercycle / MD planning

The 2013 schedule (V1.4) is available at³:

https://espace.cern.ch/be-dep/BEDepartmentalDocuments/BE/LHC_Schedule_2013.pdf

K. Hanke informed that tomorrow morning (Wednesday, 13th February) the MD to validate the Switchyard (access part of the PS tunnel while there is beam in PSB, e.g. to deliver beam to ISOLDE) has been scheduled. It will take place after the LHC filling. Since it is a fully dedicated MD, there will be no beam for the other users. The time allocated for the MD is 4 h including 2 h of access (1 h before and 1 h after the MD).

3 AOB

C. Carli asked if the dedicated ion test in LEIR could take place before the switching off of the source. D. Manglunki answered that this is possible since today (Tuesday 12th February) the beam time can be shared between LEIR and SPS MDs. The North Area experiment will run only during the night.

A. Bland asked if the extension of the run will delay the control maintenance intervention foreseen on the 25th-27th March. M. Lamont answered that no delay is expected.

P. Skowronski asked if, during the LS1, the CTF3 Vistar could be broadcast on the CERN public monitors. M. Lamont agreed.

K. Hanke informed that this is the last FOM of the 2013 and FOM will be resumed in the 2014.

Minutes edited by G. Sterbini.

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