

Minutes of the 13th FOM meeting held on 01.07.2014

Agenda:

- 1) Schedule Updates
- 2) Status of the Machines
- 3) AOB

1 Follow-up of the last meeting

The minutes of the 12th FOM meeting were approved.

Pending actions:

There are two open actions.

M. Tavlet had to validate the beam stoppers cable campaign. After a meeting between M. Tavlet and A. Masi it was decided to proceed with the cable installation. The intervention is being carried out today (1 July). The action is closed.

Concerning the outgassing of the slits in Linac2, R. Scrivens is in contact with O. Aberle. The problem is still under investigation. The action is closed.

2 Schedule Updates

K. Hanke presented the Injector Schedule (v1.5). It can be found at

https://espace.cern.ch/be-dep/BEDepartmentalDocuments/BE/Injector_Schedule_2014.pdf

Compared to the v1.4, the DSO test for the East Area and ISOLDE were moved from week 27 to week 28.

3 Status of the Machines

Linac2 (G. Bellodi)

On Tuesday (24 June) a radiation measurement campaign took place. Data analysis is on-going with RP.

During the week there were few source sparks but no valve closure occurred. Monitoring will continue.

The problem of the outgassing of the slits is now being followed-up by R. Scrivens.

PSB (B. Mikulec on behalf of J. Tan)

During the week the set-up of the reference beam NORMGPS (RF, MRP, beam instrumentation, YASP, timings...) continued.

On Tuesday morning a PSB access took place. Another piece of cotton was found in the water cooling pipe of QFO21.

The power piquet was called for the BI.DHZ20, which had no acquisition. The problem was solved by replacing a pulse timing board.

It was found that all ring PUs in 4L3 were drifting towards negative values. The specialist solved the problem by changing some hardware modules.

On Wednesday the LHCINDIV commissioning started: the number of particles is controlled via longitudinal shaving (early beam blow-up with the C16 cavity).

On Thursday morning, the ejection kickers went off for 30 min.

On Friday A. Findlay found that the TRIM power supply for the rings 1- 4 of LHCINDIV were not seen on OASIS. The problem was solved by copying again the function from NORMGPS. The LLRF team set up the RF functions for all 4 rings. In the late afternoon, the beam was sent to the PS. Some issues were found on LTB.BPM20 and BI3.BPM40 (investigations by the specialist are on going).

On Saturday it was found that the OASIS channels of BTP.BPM10 and BTP.BPM20 are inverted.

Yesterday (30 June), there were problems in R3 for 1 h. Last night there were 2.5 h downtime due MPS.

Today (1 July) there is an access with several interventions.

K. Hanke added that PSB should restart around 12h00 whilst PS access will last all day.

At the moment the PSB reached half of the nominal intensity for the ISOLDE beam.

[PS \(A. Guerrero\)](#)

This first week of beam in the PS was dedicated

- to test and debug the instrumentation and in particular the orbit and tune measurement systems,
- to perform orbit measurements at 10 GeV and to compute the magnet displacements requirements in view of the access foreseen on Tuesday,
- to make beam loss tune diagram measurement before the re-alignment
- and to perform RF tests.

All beams requested for the fore mentioned tasks were provided.

One bunch on H8 with up to 130E10 ppb was accelerated and fast extracted to D3 at 26 GeV for instrumentation tests.

The orbit measurement shows a vertical orbit offset of approximately 1 mm. It seems that the

offset is related to the gain setting.

One bunch on H8 with a long 3.5 GeV flattop was prepared for tune diagram measurements on Monday and the tune measurement system for both long and short PUs was available on Thursday. The excited resonances appear to be as expected, especially the strong skew sextupolar line.

Several other beams were prepared as requested by RF, special LHCINDIV, SFTPRO, LHC_DB_50 and AD. In particular, the four bunches LHCINDIV (1 bunch per PSB ring) requested by RF for H16LI setup was delivered on Friday.

On Tuesday, after the PSB stop several shots were accidentally sent to the beam stoppers.

There were three beam stops which originated from the access system. Somebody doing maintenance forced a door between TT10 and TT2. The other two stops originated from system faults but no patrols were lost. P. Ninin is following-up the problem.

After the re-alignment campaign the beam commissioning will continue in the evening.

K. Hanke asked if there is a prioritized list of the different beams to prepare in the PSB. R. Steerenberg answered positively. The beam requests were discussed with the PSB team after the meeting.

[SPS \(D. McFarlane\)](#)

The SPS LS1 ended officially on Friday (28 June) when the machine was closed. There should now be no more access, except for emergency situations.

J. Nielsen asked about the modalities of the access. D. McFarlane answered that all LS1-SPS IMPACTs are not valid anymore. Any access into any area of the SPS will require a new IMPACT. In the IMPACT request there must be indicated the correct “intervention period”.

[ISOLDE \(M.-L. Lozano Benito\)](#)

Concerning HRS, the actual target pin configuration is not compatible with the new panel for the target power supply connection. Without controlling the voltage on the target anode it is almost impossible to take any beam along the separator magnets and without beam the new scanners cannot be tested. P. Fernier will work on the problem. The ISOLDE mass control is still very unstable. It needs to be rebooted several times per day. M. Colgiago is working on it.

The vacuum intervention on the HRS12 turbo-pump has not been scheduled yet.

Commissioning of the RFQ has not started yet because it is not possible to send beam due to issues in the upstream sectors.

On Thursday morning, there was an INCA problem. It seemed solved on Friday but it showed up again on Monday. S. Bart Pedersen is following-up the issue. Most probably it is

related to the fact that the crate is overloaded.

The situation for GPS is progressing well. This week there was only a control card to replace.

R. Catherall officially informed the FOM that the ISOLDE commissioning has delays (problem with robots and shielding) and asked to move the DSO test on the 21 July. ISOLDE should be able to take beam on the 24 July and start the physics on the 1 August. He informed that there is not time contingency in the proposed schedule. The FOM took note of the new start-up planning.

[nToF \(S. Montesano\)](#)

S. Montesano informed about the present situation for the nToF restart. The slides can be found at

<https://espace.cern.ch/be-dep/FOM/Presentations%202014/Forms/AllItems.aspx>

The preparation of EAR1 area is within the schedule, while the installation of the beam line for EAR2 has been delayed by about two weeks due to the late delivery of the material.

The requested date for the delivery of the first beam to nToF is the 24 July.

The DSO tests of the TFT zone must be re-scheduled before the beam delivery. A possible date is the 22 July. F. Pirotte will schedule this in agreement with the nToF team and report to the FOM.

[East Area \(L. Gatignon\)](#)

The East Area interventions are on schedule. The old marguerite has been removed successfully yesterday (30 June). There was a problem of the interlock requiring an EPC and Access intervention. Probably the cables have to be replaced.

There are problems with the compression air for the beam stoppers. For the moment the date for the DSO test is maintained but there is the risk of delays.

[AD \(\)](#)

No news.

[Linac3 \(\)](#)

D. Kuchler sent an email before the FOM:

“ The basic RF controls are now available.

During the week BCT timings were debugged (it took several days).

Concerning the LBS application for the Argon measurement and the application for the ITFS line some of the knobs for the slits are still not in the final requested state.

The beam at the end of the Linac has a good intensity (30-40 μA) but it is still quite unstable.

The setting up of ramping and debuncher cavities has still to be done.

One day was lost due to the cabling for the pepper pot.

LEIR (S. Pasinelli)

A lot of progresses was made on the Argon cycle and the hardware test. Now a lot of measurements are on going.

There was a recurrent problem on the sampler and some acquisitions. M. Gourber-Pace asked on which devices the problems occur. S. Pasinelli answered that the problems concern the triple PPM and RDA3 devices.

D. Manglunki informed the meeting that the LEIR visitor platform is closed (if forced the interlock will stop the beam). When the beam will be fully commissioned, RP will do a measurement campaign to verify if the platform can be accessible even during LEIR Argon run.

TI (J. Nielsen)

There was problem with the 18 kV line in BA2 on Friday (27 June) due to a cooling pump.

4 AOB

C. Mugnier asked if the new schedule for ISOLDE and nToF will have any impact on the EPC piquet. The FOM decided to postpone by one week the restart of the EPC piquet. The EPC piquet will start on week 29.

M. Gourber-Pace informed the meeting that there is a request for an IT database intervention on the 8 July from 09h00 to 17h00. The intervention should be transparent but, due to its nature, affected databases are potentially at risk.

The next FOM meeting will be held on the 8 July. The agenda will be communicated in due time.

Minutes edited by G. Sterbini.