Minutes of the 26th FOM meeting held on 30.09.2014

Agenda:

1) Follow-up of the last meeting
2) Status of the Machines
3) Schedule Updates
4) AOB

1 Follow-up of the last meeting

The minutes of the 25th FOM meeting were approved.

Pending actions:

There were no pending actions.

2 Status of the Machines

Linac2 (R. Wegner)

It was a very good week for Linac2. There were no problems to report.

PSB (J. L. Sanchez Alvarez)

The PSB had an excellent week with only a major issue during the weekend.

On Tuesday morning, the ejection kicker had a problem. A reboot solved the issue (25 min downtime).

On Wednesday the LL RF specialists changed the DSP code to solve the h=2 synchronization problem of the Ring 4.

On Sunday afternoon there were 4 hours of downtime. The extraction kickers did not receive the warning timing since it was blocked by the FIB (Fast Interlock Beam) card. The BIS was working as expected. Specialists and piquet kickers were called but no spare FIB card was available. The beam permit A was correct but the beam permit B was blocking the trigger.

The issues was solved by by-passing the beam permit B (FIB). It was reported that the contact list for the kicker was not complete. M. Hourican will complete and correct if needed the contact list.

ISOLDE ()

It was a quiet week for ISOLDE.

HRS: Since Monday (22 September), when a target change was attempted on HRS, the clamps were stuck. The target group tried to evaluate and resolve the situation with the use of a robot. Finally a human intervention was foreseen for Monday (28 September). The problem was solved but not understood.

GPS: The collections were running smoothly all along the week. From Saturday evening and Sunday, TISD observed a transmission dependency according to the mass and, in addition, a fluctuation on the readings of two Faraday cups (YGPS.BFC4900, YGPS.BFC5580).
On Sunday a change in the beam profile was also noticed which was resolved by re-loading the configuration file of the setup done on Friday. The fluctuation and transmission issues will be further investigated.

ISOLDE Users (M. Kowalska)

Due to the problems with the target the HRS collection scheduled for the past week were cancelled. GPS users were internal ones. Another GPS run will be tried at the end of the week.

PS (J. Wozniak)

It was a quiet week for the PS with all the beams delivered as expected for the current operational users. The SPS is now also actively taking the LHC 25ns 12b and SFTPRO beams.

On Tuesday the PSB had extraction kicker problem, SPS access for TT2 QIIF.1002 was planned in the shadow of this problem. The time of beam stop was around 2h30 min for both issues.

On Wednesday until late afternoon PS did not have many clients as only AD requested beam. In the shadow of no beam, POPS tripped because of cooling water problem that was repaired without causing much additional downtime. All beams were back in the late afternoon.

On Thursday night there was a problem with the AD pick-ups, which caused a beam stop for around 4 h. On Friday DSO tests were scheduled for EAST IRRAD, which were finally cancelled due to technical problem in the zone.

The weekend was very calm as well only marked with Sunday's stop of 4 h due to a PSB timing problem with a kicker BE.KFA14L1.

S. Gilardoni added that the kicker 13 and 21 would not be available as foreseen. On the 10 of October the kickers will be pulsed and depending on the results of the test they will be put back into operation.

Concerning the wire scanners in the PS, all the WS are back into operation with the 10 s limitation between two scans. S. Hancock asked to clarify what is at the moment the reason of this limitation. An action was opened.

East Area ()

L. Gatignon sent an email before the FOM:

"[…] As far as I can tell the East Area has been running smoothly. CLOUD started last Thursday and was happy with the beam.

The DSO tests for CHARM and IRRAD had to be postponed due to cut cables. […]"

East Area Users (H. Wilkens)

ALICE users are very satisfied with the present beam condition.

nToF ()

No news.

AD (L. Joergensen)

The past week was the first full week of beam for physics for all scheduled experiment.
The week saw a great number of problems that slowed down progress with physics, but gradually the problems were resolved.

The problems mainly involved the stochastic cooling pick-up movement, extraction kickers, extraction line stability, e-cooling, C02 cavities, GEM detectors and main quadrupole power supplies.

The electron cooler still drops a few shots, but it is now down to a shot every few hours, so is now very difficult to optimize further.
The overall efficiency has increased slightly so 2.5E7 pbar can be extracted to the

experiments.

AD Users (H. Wilkens)

The scheduled He delivery did not take place. This stopped strongly perturbed and in some case stopped the data acquisition. K. Hanke will directly contact R. Maumy concerning the problem.[1]

SPS (V. Kain on behalf K. Cornelis)

The week in the SPS was mainly spent to do the damper setup on the FT cycle. The low level electronics and the software is new, the commissioning took the whole week and is not completely accomplished. The debug of the monitors in the North extraction channel took also place.

The LHC 25 ns beam is limited by the vacuum in MKP4. The beam is warming up the kicker yoke and a temperature rise from 33 degrees to 36 degrees is sufficient to trigger the interlock level of 2E-7 bar. The beam condition of the MKP and MKD continued and SPS can now have 48 bunches for 3 seconds and 36 bunches for the whole cycle.

On Wednesday a vacuum leak developed on the bellows of a mini-scan in the ZS region. M. Hourican commented that the bellow is belonging to a BI equipment.

This week the DSO tests for the North Area will take place (Monday, Tuesday and Wednesday).

CTF3 ()

No news.

IONS

Linac3 (R. Wegner)

It was a good week for Linac3 hampered only by a communication problem on Thursday.

LEIR (M. Bodendorfer on behalf M. E. Angoletta)

---

[1] After the FOM, T. Eriksson informed that R. Maumy proposed a solution to limit the impact of the late He delivery.

M.E. Angoletta sent an email before the FOM:

“It was a productive week for LEIR.

On Thursday there was a problem with the extraction kicker KFH31, due to PXI communication problem. The experts traced that to a faulty crate power supply and solved quickly the situation. As PS was not taking ions, this did not result in a beam down time.

On the RF front, several MDs were carried out. The final outcome is that now LEIR produces a beam conform to the emittance requirements of the PS (1.5 eVs in a bunch). The intensity we have now at extraction is on average 1 E10 charges (fluctuations typically from 0.8 E10 to 1.2 E10 charges). The emittance is typically 1.4 eVs max. This means that LEIR can now deliver a beam that the PS can deliver to the SPS without the need of doing any splitting.

Finally, on Monday there was a network connection cut for the kicker PXI links, which solved itself. On Monday afternoon the Finemet cavity dropped with a non-resettable fault. The RF specialist (Matthias) traced that to a faulty power supply that he promptly replaced, thus restoring the cavity operation.

I would like to thank:

a) Steve Hancock for his instrumental contribution during the RF MDs that allowed to have a PS-conform beam out of LEIR.

b) Jerome Axensalva for his work on LEIR during his night shifts as well as today;

c) Sergio Pasinelli for suggesting (in the absence of the person in charge of this equipment) how to modify the electron cooling operation.

Once more, the excellent results we can have are due to an excellent teamwork and to the generous spirit of many people.”

PS (J. Wozniak)

There was nothing to report concerning the ions in the PS.

TI (P. Sollander)

A rather quiet week with just one major event on Tuesday when at 19:23 the 18 kV trip cut the North Area and the SPS RF for 1 hour. The source of the trip was a broken cable on the

current reader.

3 Schedule Updates

The Injector Schedule (v1.7) is available at

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

The North Area DSO test (week 40) and the North Area physics start (week 41) are confirmed.

D. Mcfarlane asked when the exact duration for the 29th October TS. Depending of the duration of the TS the list of the possible intervention will be presented. After some discussion it was decided that the preliminary schedule is from 8h00 to 16h00 (beam back) with the cool-time starting before 08h00. The schedule will be confirmed two week before the TS.

4 AOB

M. Gourber-Pace informed that tomorrow (1st October) the Diamon console will not be available from 18h00 to 18h30 due to maintenance.

A. Bland informed that a vulnerability in the shell running on the CCC machines was discovered and the problem will be addressed next week. The intervention will be transparent for operation.

The next FOM meeting will be held on the 7 October. The agenda will be communicated in due time.

Minutes edited by G. Sterbini.