

Minutes of the 11th FOM meeting held on 17.06.2014

Agenda:

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

1 Follow-up of the last meeting

The minutes of the 10th FOM meeting were approved.

Pending actions:

There were no pending actions.

2 Schedule Updates

B. Mikulec presented the Injector Schedule (v1.4). It can be found at

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

B. Mikulec commented that, following Evian Workshop recommendations, the SPS scrubbing run is re-scheduled for week 39 and 45. As consequence the start of the North Area setup will be anticipated by one week. B. Mikulec asked if the North Area would be ready to receive beam in week 40. A. Fabich answered positively.

D. Manglunki asked if the argon beam could be commissioned in the SPS in week 41 instead of week 42. T. Bohl, R. Steerenberg and S. Hancock answered positively concerning SPS and PS. M. Lamont commented that week 41 will be an intense beam-commissioning period, but he agreed.

3 Status of the Machines

Linac2 (R. Scrivens on behalf of M. O'Neill)

In the LBE line, the vacuum was recovered and therefore there was no need to carry out leak detection. The cooling of the slits has still to be checked.

The vacuum valves between the source and the RFQ (VVS10) and between the RFQ and Tank 1 (VVS20) occasionally close during high voltage flashovers of the source. There are several unused earth cables and other cables nearby the RFQ area. There are the suspicions that the issue is related to these cables: they will be removed or tidied up during the next 2 h stop.

The temperature of the source cage ventilation increased by 5°C on Wednesday and the flashover rate appeared to increase from 4/day to 12/day. Temperature is now under control and the flashover rate and the valve-closing problem will be monitored in the next days.

PSB (E. Benedetto)

There is presently no beam in the PSB because of a fault in BT.BHZ10, the switching magnet sending beam either to the PS, ISOLDE or the PSB dump. During the week-end, the OP team spotted the problem on BT.BHZ10: it was not possible to pulse it to its required value for the PS destination. The power piquet replaced the power supply, but this did not solve the issue. The experts suspected some electrical grounding problem. A. Newborough (with S. Pittet on the surface for the Power Supply) had an access to the PSB at 17h00 yesterday (Monday 16 June) and found a short circuit between the lower coil and the thermal switch on the coil itself. It was decided not to put back the beam to exclude the risk of damaging the magnet and prepare for access. The access to repair the magnet is presently ongoing (Tuesday 17 June). At the best beam will be back by midday, but the intervention could take the entire day. BT.BHZ10 is a critical equipment and there is no spare available.

Last week there was a lot of work ongoing from the BI side to fix open issues: PUs in the injection line and in the ring, wire scanners, Q-meter. The FESA classes for the extraction PUs is still missing.

From the RF side, the second harmonic system (C04) is now set up in all the rings with phase loop and they have now started working on the C16 blow-up. A first synchronisation issue was solved last week after a lot of debugging, by replacing the old drivers for the generation of the extraction kicker fine delay and improving the signal quality of the RF trains. Another synchronization issue was found as well when receiving RF trains from the PS. It is presently under investigation.

PS (R. Steerenberg)

There was a first trial to inject beam into the PS on Sunday, but the problem with BT.BHZ10 prevented further progress.

Last week the magnet checks in TT2 took place.

Last Wednesday (11 June) a vacuum leak was found on the feed-through of ion pump ITH.VPI101. Leak detection was carried out and it was concluded that the feed-through has to be replaced. The feed-through replacement was scheduled for today (17 June) in parallel to the intervention of the BT.BHZ10 and together with the intervention requested by D. Bodart in the switchyard.

B. Mikulec asked if the PS was ready for starting the beam commissioning on the 20th of June. R. Steerenberg answered that the cold check-out is progressing well and that the PS would be ready.

Concerning CO, R. Steerenberg commented that splitting the responsibility between the different groups of similar devices or timing signals increased in a not controlled way the number of FESA classes. In addition to that there are non-unique conventions adopted in the classes. The large number and inhomogeneity between the FESA classes should be addressed to ease machine operations.

SPS (B. Salvant)

The SPS is still in shut-down mode.

SPS shifts will start next week.

J. A. Ferreira Somoza reported that the vacuum leak on the quadrupole QD119 was repaired. The quadrupole has been installed and the vacuum is improving.

Cavity 3 is not reaching the nominal vacuum level probably because of an accidental venting during LS1.

There is a multitude of vacuum interventions still to be carried out. A delay of the machine closure would practically lead to a delay in machine cold check-out.

Machine closure is planned for the 28th of June to start the EPC tests.

ISOLDE (L. Fadakis)

The leak in HRS20 was solved.

Beam commissioning started in the GPS line, but not yet in HRS.

M. Kowalska pointed out that there was a cooling pipe problem in the target area preventing the commissioning of the robots. The welding to repair the pipe has been redone several times without success and there will be another repair attempt. B. Mikulec asked if the welding procedure would be different and improved next time. M-L. Lozano Benito answered that it will be unchanged.

nToF ()

No news. B. Mikulec commented that due to the close restart of the nToF facility, the FOM should be informed of the situation of the nToF experimental area.

East Area ()

No news.

AD (T. Eriksson)

The HW commissioning is ongoing.

There is a problem to access the machine with a magnet on: a special-permit was required 3 weeks ago, but the permit is not yet granted and this is blocking part of the commissioning.

F. Pirotte will follow up the issue. An action has been opened.¹

CO dry runs are continuing together with the preparation for the repair of the horn stripline.

Linac3 (D. Küchler)

On Tuesday (10 June) a water leak on one of the weldings of the waveguide cooling circuit was detected. It was sealed with a resin. At the moment the problem seems solved. In case the issue would reappear a replacement of the injection flange would be needed.

On Wednesday (11 June) a HT problem occurred due to an error in electrode position: the source was opened and the extraction gap re-adjusted.

On Thursday and Friday (12 and 13 June) the debugging of new source remote control took place with a partial source commissioning.

On Friday (13 June) there was a problem with the air conditioning (25.5°C in the source room).

On Monday (16 June) the source commissioning went on: HTRESET was deployed; beam was sent to FC2 and FC3. Several timing cables were wrongly connected.

The RF controls are not yet available but should be operational for this week.

There are some controls issues to be solved (slits, power converter knobs, SEM grid entries in the CCM, ...).

All beam instrumentation has to do be debugged with beam and, to install the pepper pot, two days of stop are needed. The time left for the official beam start to LEIR will not be sufficient: probably there will be one week of delay.

D. Manglunki asked if the pepper pots were ready for installation. D. Küchler answered negatively.

M. Gourber-Pace asked about the reason of the delay in the Linac3 commissioning. D. Küchler answered that it was mainly due to vacuum-related problems.

LEIR (D. Manglunki)

The LEIR team will do their best to absorb the Linac3 delay.

D. Manglunki acknowledged S. Jensen and J. Axensalva for their continued efforts during the machine commissioning.

¹ After the FOM, F. Pirotte informed that the SPECIAL PERMIT was created on the 19 June by GS/ASE. T. Eriksson will be the responsible person to sign the authorization and M. Calviani his deputy.

The DSO tests took place last Wednesday (11 June) as planned. Nevertheless LEIR is still in HW commissioning phase due to accumulated delays. Next week probably LEIR will start its cold check-out.

All front ends were upgraded to LinuxRT from LynxOS since Friday (13 June).

The BI dry run took place last Friday (13 June), another one is planned this afternoon (17 June).

The 2 h tests of injection bumpers at 10 Hz were successful. Until LS2 only the 5 Hz mode will be used in operation.

The RF dry run took place yesterday (16 June).

The remote ON for the power supplies does not work yet. The main bendings are pulsing correctly. After the removal of the cable around the BHN20 yoke, the vacuum chamber does not move anymore.

[TI \(\)](#)

No news. D. Manglunki informed that in the building 150 (B150, LEIR building) part of the roof was leaking. D. Manglunki called the TI team, but they informed him that the CERN Service Portal (77777) is in charge of this kind of problem. M. Lamont commented that even if the B150 is an accelerator building, TI and the fire brigade intervene only for emergencies.

4 AOB

B. Mikulec and M. Gourber-Pace informed that an intervention is required on the front-end cs-ccr-oas1 in order to upgrade the Oracle Application server. The upgrade will start at 08:00 and finish at 09:00 on Wednesday 18 June. The 1h is previewed for rollback in case of any problems during the upgrade. If everything goes smoothly the intervention will last only 30 min. It could perturb the machine operation.

The next FOM meeting will be held on 24 June. The agenda will be communicated in due time.

Minutes edited by G. Sterbini.