Minutes of the 7th FOM meeting held on 15.03.2011

Agenda:

1) Follow-up of the last meeting (D. Manglunki)
2) Status of the machines (Supervisors)
3) Preliminary list of interventions for the technical stop (machine superintendents)
4) Schedule (D. Manglunki)
5) AOB
6) Next agenda

1. Follow-up of the last meeting

The minutes of the 6th FOM meeting were approved.

Follow-up from the last FOM:

Pending actions:

a. *PS references in LKTIM are not written in LSA database*
b. *Repair the PS LKTIM editor*

S. Deghaye said that there are three distinct problems:

- Performance of the old application (before the update was cycle-by-cycle and now it takes several cycles to update)
- Possibility to change the tree structure with the old application to resident and non-resident cycles
- Possibility to propagate the reference changes.

For the performance of the old application, and the propagation of the references, it was agreed with OP and it was announced that no further implementation from CO will be performed. S. Deghaye said he understands that this situation is inconvenient for RF, but he said that no resource will be spent on the old application.

However S. Deghaye said that CO is working on improving the tree structure update for resident cycles - this issue is discussed and followed up by the PSS - , but nothing can be done for the updates for the non-resident cycles.

S. Hancock regretted that RF was not involved in the analysis phase before INCA was deployed. He added that edits of tree structure are rare so that the non-propagation issue can be tolerated and that, at least, a fix is in the pipeline for propagation to all resident cycles. He said that the situation for references is pretty bad, since no correct references are available, but is a "fait accompli".

D. Manglunki asked if there was a time estimate for the release of the new application, and S. Deghaye answered that it should not be expected before the end of the summer. OP will take care of the application implementation. S. Gilardoni asked

if the RF was involved in the development of the new application. S. Hancock replied that the specifications (user case), was transmitted to CO. Actions are closed (followed up by PSS).

c. *Status of eventual problems caused to BI by the redefinition of MTG user names*

A meeting is scheduled on Wednesday. Action not closed

d. *Problem with the SPS horizontal damper*

The power amplifier of damper H1 was replaced by an older amplifier. This replacement succeeded in making H1 damper work. However, the problem with damper H2 is not yet understood. After the meeting, it appeared LHC25 could be prepared with only damper H1 but CNGS beam could not be extracted (damping system not set up). Action not closed.

e. *Check for loose cables in the PS doublets during next technical stop*

It is in the list of R. Brown for the technical stop. Action closed.

f. *Monitor the pressure in Section 68 in the PS*

S. Gilardoni said it was checked, and the pressure was still fluctuating. R. Brown and V. Chohan asked about the effect on the beam. S. Gilardoni said that there was no visible effect. J. Hansen said that the pressure rise was related to the beam and S. Gilardoni did not agree but he said data will be analyzed to conclude. R. Brown asked if it could be a leak and J. Hansen said no. Action not closed.

g. *Check the polarity of all the BBS in SPS before NA startup*

Another similar problem actually occurred on Friday night with two BTVs (being IN when it was read OUT). To be followed up. Action not closed.

h. *Status of the PS-Bfield fluctuation*

As R. Steerenberg already mentioned at the last FOM, S. Gilardoni said that the PS OP team concentrates on Bdot noise monitoring first to avoid mixing the consequences of the two issues. They will restart these studies after the Bdot issue is understood. Action not closed.

i. *Monitor the Bdot at the reference magnet*

S. Gilardoni said that slow extraction was prepared. Analysis of the spill data is ongoing to know if some POPS frequencies can be observed on the spill. Action not closed.

j. *Send the list of activities for the next technical stop to the machine superintendents*

See section “Special topics”. Action not closed.

2. Status of the machines

LINAC2 (D. KUCHLER):

Sparking in the RFQ triggered the watchdog. A local reset of the RFQ solved the problem.

An overload of subscription of a frontend (DLINPOW1) triggered the watchdog. A reboot of this frontend and other workstations solved the problem. This issue is followed up by CO.

A Vero power supply had to be retuned by PIPO as the LI.SN02 solenoid tripped.

A reset cured a problem of the stray field correction.

A more detailed report can be found in the LINAC-Booster-ISOLDE supervisor meeting minutes.

PSB (A. FINDLAY for B. MIKULEC):

This was a busy week for the PSB with several small faults and effort on beam set-up.

LHC50 Double Batch is currently worked on in order to reduce the transverse emittance. Transverse emittances of 1.2 to 1.3 mm.mrad (1 sigma norm. rms) were achieved.

Splitting studies for the CNGS beam are under way.

A problem of synchronization occurred between Booster and PS. This problem disappeared without a clear explanation. S. Gilardoni mentioned it was solved by changing a timing at extraction in the PSB.

Saturday evening, a glitch caused the stop of the cooling station. The RF and the BT-BTP lines went off. The recovery was done without any problem.

ISOLDE

D. Voulot said that ISOLDE is slowly getting ready to restart without major problem. The shut-down activities were progressing as scheduled.

M. Kowalska said that the first draft for the technical stop interventions will be ready by the end of the week.

PS (S. GILARDONI):

It was a good week for the PS.

Available beams were CNGS (2.3e13p with decent losses and good spill), LHCINDIV, LHCPROBE, LHC50 single batch, LHC75 single batch, LHC25 double batch, MD4 and MD1 for MTE, EASTC and EASTB beams.

POPS continued to work perfectly as during the last weeks. A cooling circuit failure was fixed by the power piquet.

Synchronization problems occurred independently with both PSB for all the beams and SPS for the CNGS beam. Changing a PS timing restored the synchronization with the SPS but the problem came back and disappeared again without a clear explanation. As mentioned in the PSB report, the problem with the PSB was fixed by changing the warning synchronisation timing generated by the PSB.

The first tests of jumping the electrostatic septum with MTE were not too conclusive due to initial orbit system issues and due to the fact that the test could only be done with the core.

In addition to the wire scanners and SEMGRIDS issues in TT2, several issues occurred with instrumentation: the orbit acquisition was not working on several users (fixed by the expert) and the tune measurement was lost (the expert is working).

DSO tests took place for nTOF area. S. Hutchins confirmed that the tests were successfully concluded.

PS users (H. BREUKER)

nTOF is ready and the EAST schedule is ready.

SPS (D. MANGLUNKI):

The LHCPROBE, LHCINDIV and LHC75 beams were delivered to LHC, and the CNGS beam started to be prepared. During the whole week, whenever possible, access was given to BA7 for HiRadMat installations.

Following unexplained large horizontal injection oscillations on all beams and the impossibility to inject the CNGS beam from TT10, the kicker specialist eventually diagnosed that the PFN of generator 1 was broken. It was replaced by the spare that was used for testing. L. Ducimetiere said that the problem was due to water that leaked and went into the oil. A short had occurred and many elements were broken inside. No alarm was triggered as the charging current appeared normal. Only the discharge current was not normal. That is why the issue could only be understood 5

days later. K. Cornelis said that a meeting should be organized between ABT and OP to make sure that an alarm warns the operators in case such a problem occurs again.

CTF3 (S. PASINELLI):

PHIN: Conditioning of a new cathode and optimisation of bunching.

CLEX will be closed this week and DSO tests are finished.

TI (P. SOLLANDER):

Electrical perturbation occurred yesterday on 400 kV at 7h19 but it seems it went unnoticed for the injectors.

LHC interface with injectors:

After the meeting, M. Lamont confirmed that the LHC scrubbing run would be advanced by one week (see updated schedule) and said that the required beams before the technical stop will be LHC75 and LHCINDIV.

3. Preliminary list of interventions for the technical stop in W13

The draft lists were presented by D. Kuchler (LINAC2, slides), N. Gilbert (PSB, slides), R. Brown (PS, slides) and D. McFarlane (SPS, slides).

Discussions:

PSB:
N. Gilbert mentioned that only 2 days out of the 3 days would be needed for the PSB

PS:
S. Gilardoni asked whether the geometers were planned to measure the longitudinal position of kickers in TT2. R. Brown answered that he had no reply from the geometers yet. V. Chohan wondered if S. Gilardoni also asked for the survey of the BI line. S. Gilardoni answered that this survey was already discussed with T. Dobers and B. Mikulec last year.

SPS:
K. Cornelis mentioned that the additional need to work on two leaks in LSS1 may change the schedule. H. Vincke added that one of the magnets is unfortunately very close to the dump (TIDV), which means that the dose will have to be estimated and may involve the ALARA committee.
D. McFarlane and D. Manglunki stated that there was no intention to extend the technical stop to 4 days.

The list of CV interventions still has to be added, as the access to check the stepping motors of BTVs and screens (see action above).
There was no request from HiRadMat but D. McFarlane said that maybe the requests went to someone else.

4. Schedule / Supercycle / MD planning

RP should say when the beams should be stopped at the next FOM.

A. Bland asked whether CTF would be stopped during the technical stop. After the meeting, D. Manglungki checked that CTF should run during the technical stop according to the CTF3 schedule.

The injectors schedule was not updated yet unfortunately to reflect:
- the SPS fixed target fragmented ion run
- the fact that the LHC scrubbing is advanced by 1 week.

N. Gilbert informed that AD will be closed on March 28th and that DSO tests should occur that same day. S. Hutchins suggested it may be easier to perform the DSO tests on March 29th (first day of technical stop) due to an interlock. Beam for AD is expected on April 11th.

R. Scrivens asked at what time the restart is planned. D. Manglunki answered that the schedule states Friday April 1st at 8am. However, he assumed it could be at 4pm on Thursday March 30th as there may be no point to wait until 8am.

The 2011 schedule (V1.4) is available at:
https://espace.cern.ch/be-dep/BEDepartmentalDocuments/BE/2011-injector-schedule_v1.4.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.

5. AOB

P. Sollander mentioned that an intervention will take place on GSM base stations, which means that GSM will not work in certain areas. After the meeting, he provided the “note de coupure” (page 1 and page 2) in which times of the GSM cuts in each area are stated. It can be seen that no GSM cut is planned during the injector technical stop.

6. Next meeting

The next meeting will be held on Tuesday, 22th March at 10:00 in 874-1-011.

Preliminary Agenda:

1) Follow-up of the last meeting
2) Status of the machines
3) Final list of interventions for the technical stop (machine superintendents)
4) Schedule
5) AOB
6) Next agenda

Minutes edited by B. Salvant and S. Gilardoni