Minutes of the 8th FOM meeting held on 22.03.2011

Agenda:

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

1. Follow-up of the last meeting

The minutes of the 7th FOM meeting were approved.

Follow-up from the last FOM:

Pending actions:

a) *Give date and time at which each type of beam has to be stopped for the technical stop in W13*

Action closed, see special topics.

b) *Give date and time of restart after W13 technical stop*

Action closed, see special topics.

c) *Problem with PS tune measurement*

A. Grudiev said that work is still ongoing. The tune signal is mixed with high amplitude noise at 10 kHz. The expert accessed the machine twice and put new electronics to try and filter out the 10 kHz noise that seems to be generated from the main power supply. This did not help. The expert will continue investigations. In particular they investigate putting the BBQ monitor in the straight section to get further away from bending magnets. Action not closed.

d) *Problem with the SPS horizontal damper*

No SPS representative present at the meeting. After the meeting, the SPS OP team said that a lot of work was done and that setting up with the damper was well under way (only LHC75 left to set up). Action not closed.

e) *Status of eventual problems caused to BI by the redefinition of MTG user names*

No representative from BI was present at the meeting. Action not closed.

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

A. Grudiev said that no rise could be observed this week. J. Hansen said the situation will anyway change after next week's technical stop as the wire will be installed in the tank. Action closed unless there are renewed issues.

g) *Monitor the Bdot at the reference magnet*

No news. Action not closed.

h) *Check the polarity of all the BBS in SPS before NA start-up*

According to SPS OP team, new polarity issues came up this week. Action not closed.

i) *Send the list of activities for the next technical stop to the machine superintendents*

Action closed.

j) *Status of the PS-Bfield fluctuation*

No news. Action not closed.

2. Status of the machines

LINAC2 (R. Scrivens):

A power cut occurred due to a defective AUG emergency stop button. Someone touched the frame around an emergency button and it triggered an alarm, leading to 2 hours of downtime. The AUG was removed from service as another one can be found 10 m away. This issue is being followed up. A problem with the emergency lighting also occurred, that is also followed up.

The watchdog was cutting the beam due to overloaded frontend. A change to extend the timeout needs to be deployed. K. Kostro confirmed that the front end CPU will be replaced next week.

PSB (K. Hanke):

Many small problems occurred this week.

The water pressure of cavity C04 gave problems many times this week and the cavity expert decided to intervene during the technical stop in week 13. It is hoped to run in these conditions until then. In case the situation degrades, an intervention will have to be scheduled before the technical stop.

The vacuum piquet was called to intervene on two vacuum valves that closed and two pumps that stopped working in the LTB and BI lines

The MPS went down Saturday night.A fuse needed to be changed by the EPC piquet.

The beam current transformers were recalibrated by the expert (attenuation changed) as readings in PSB were out of range by more than a factor two.

TOF

H. Breuker reported that TOF is in excellent condition.

ISOLDE

Technical stop.

PS (A. Grudiev):

LHC50 double batch was prepared at nominal intensity and LHCINDIV was requested with 4 bunches

TOF started operation with a maximum of 1.6e12 p/s. CNGS started with half of the nominal intensity.

Acoustic noise coming from magnets in the tunnel is different than before. Acoustic measurements have been performed and are analyzed. Frequencies are different and can be heard.

A new version of the ppm copy was installed by the INCA team. Problems and bugs initially occurred but they were quickly corrected and now it works.

A radiation alarm occurred with the TOF beam. Radioprotection did measurements and found increased radiation levels. It was found out that it was due to FTN.BHZ403 that was pulsing at wrong values, which was affecting the beam going to the dump and to TOF. The power supply experts fixed the problem. M. Widorski said that the OP team could not diagnose where these losses happened. The RP technicians needed to go in to check where the radiation alarm was coming from. There is therefore a need to add BLMs also in this location (TT2). A. Grudiev said that there are BLMs already in TT2 but not in the TOF line.

The PS Vistar was updated. It displays now the LSA name and not the user name.

A problem with YASP was seen as YASP uses vertical correctors from the PS Booster that cannot be controlled from INCA. This problem will disappear as soon as INCA will be deployed on the PSB.

A short on contact cables in the central building was discovered on Monday morning.

An intervention on POPS for the ripple (few Gauss) on the flat bottom did not solve the problem. Another intervention is needed.

SPS (no representative present):

E. Métral circulated the SPS weekly summary before the meeting:

"The week started with the repair of the broken PFN on the proton inflector which took most of Monday daytime. After having recovered the full kick strength we could inject the CNGS beam without problems, and on Tuesday the first CNGS was send down TT41 to do target scans. There were some problems with the acquisition of the horn-reflector currents and the target scans were resumed on Wednesday after an ADC was changed. CNGS operation had to be interrupted again on Thursday in order to repair a vacuum leak on the window before the CNGS target. This intervention took until Friday morning. In the mean time the damper was commissioned on the CNGS beam and on Friday afternoon we could send two batches to the CNGS. The intensity over the weekend was kept to two batches of 1 10e13. On Saturday we were informed that the extraction timing was not sent to OPERA. Experts were called in and the problem could be fixed.

On the LHC side, we have been sending the probe and 75nsec beam on request. We also prepared an INDIV beam with four bunches per CPS cycle, 525nsec apart. We also checked the 50nsec beam. With four batches of this beam there is still some out gassing of MKE4 due to electron cloud."

The SPS is now delivering five spills for CNGS per supercycle (full duty cycle for CNGS). It was asked whether this would affect the radiation levels in view of the upcoming intervention. After a discussion on Friday with K. Cornelis, no additional impact is expected as beam is not dumped in BA1. H. Vincke warned that RP technicians could not even go next to the location of the intervention on Monday due to very high radiation levels (>25 mSv/h).

The adopted policy is to allow high intensity for CNGS this week. However, as the fix of the 3 magnets in BA1 during the technical stop is critical (scraper is less critical), the FOM endorsed a stop of the CNGS beam 24 hours before the beginning of the technical stop to allow for sufficient radiation decay (i.e. along with the LHC on Monday morning 28/3 at 8:00).

D. McFarlane asked whether all SPS sectors should be closed during these 24 hours before the technical stop. H. Vincke said some areas could indeed be opened but it

was decided to keep SPS closed during this time as critical interventions are anyway in BA1.

CTF3 (no representative present):

As reported by D. Manglungki after the last FOM, CTF3 will run during the technical stop.

CNGS (H. Breuker)

Nothing special to report

TI (E. Lienard):

There was an overheating problem in CNGS yesterday evening. CV came and fixed a temperature control problem and within 10 min it came back to normal.

LHC interface with injectors (no representative present)**:**

The FOM assumed that the LHC will need beam at 8:00 am on Friday 1st April after the technical stop.

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

The final lists were presented by R. Scrivens (LINAC2, slides unchanged from last week), N. Gilbert (PSB, slides unchanged from last week), R. Brown (PS, slides unchanged from last week) and D. McFarlane (SPS, updated slides).

Discussion:

LINAC2:
No additional intervention. Beam will be sent to dump on the end of morning Thursday 31st March to allow for testing the machine after tube changes.
Access for RP is planned at 8:00 am on Tuesday 29/3.
All beams will be stopped 3 hours before (5:00 am).
Restart with beam Thursday 31/3 end of morning.

PS Booster:
No additional intervention.
Access for RP is planned at 8:00 am on Tuesday 29/3.
All beams will be stopped 3 hours before (5:00 am).
Interventions to be finished Thursday 31/3 around lunchtime.

PS:
R. Brown reminded us there will be no access on Tuesday 29/3 (POPS pulsing), with the exception of RF technicians.
There will be normal access on Wednesday 30/3 until 4pm then POPS will be pulsed.
The end time of access is planned for Thursday 31/3 (end of working day).
Access for RP is planned at 8:00 am on Tuesday 29/3.
All beams will be stopped 3 hours before (5:00 am)
Interventions to be finished Thursday 31/3 by end of the working day.

SPS:
D. McFarlane mentioned that BI went in already to check the BTVs in BA1 but they will have to go back down during the technical stop for the actual intervention.

Most critical interventions are in BA1: 3 magnets have to be repaired/replaced due to water leaks and a scraper has to be installed. H. Vincke reminded that it is one of the worst areas to intervene as far as radiation is concerned. In fact, a major concern is QDA11910 as it is not clear yet whether there is a need to replace it. In that case, we are looking at a downtime of 1 to 2 weeks instead of 3 days.
Access for RP is planned at 8:00 am on Tuesday 29/3.
All beams will be stopped 24 hours before (i.e. Monday 28/3 at 8:00 am) and the use of the dump should be kept to a minimum during the weekend (Sat 26/3-Sun 27/3).
Interventions to be finished Thursday 31/3 by end of the working day.

In this configuration, H. Vincke said there is a good chance that the interventions can be authorized by RP.

D. McFarlane mentioned the statement from EPC concerning the long-term reliability of the equipments that have to be turned on and off at every short technical stop due to the need of consignation.

HiRadmat:
The technical stop starts on Monday 28th March at 7:30 am.

Summary table:

Machine	**Beams stop**	**RP Access**	**Access on Tuesday 29/3?**	**Access on Wednesday 30/3?**	**End of Access on Thursday 31/3?**
LINAC2	29/3 at 05:00	29/3 at 08:00	Yes	Yes	morning
PSB	29/3 at 05:00	29/3 at 08:00	Yes	Yes	lunchtime
PS	29/3 at 05:00	29/3 at 08:00	Only RF	Up to 16:00	End of Working day
SPS	28/3 at 08:00	29/3 at 08:00	Yes	Yes	End of Working day

4. Schedule / Supercycle / MD planning

H. Breuker asked whether a change for NA physics start date was foreseen. K. Hanke answered that there is no plan at the moment to change it.

N. Gilbert mentioned that the AD machine will be closed and patrolled on Monday 28th March. As suggested last week by S. Hutchins, the DSO tests will take place the following day.

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

6. Next meeting

The next meeting will be held on Tuesday, 29th March at 10:00 in 874-1-011.

Preliminary Agenda:

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

Minutes edited by B. Salvant