Minutes of the 8th FOM meeting held on 09.03.2010

Agenda:

1) Follow-up of the last meeting (K. Hanke)
2) Status of the machines (Supervisors)
3) Schedule (K. Hanke)
4) Special topics:
    a) responsibility definition during shutdown and technical stops (N. Cohan)
    b) update on next technical stop (Machine superintendents)
    c) CTF3 fire (M. Tavlet)

5) AOB
6) Next agenda

1. Follow-up of the last meeting

The minutes of the 7th FOM meeting were approved.

Follow-ups from the last FOM:

a) The technical stop of 22-23 March has been cancelled and advanced to the 15-16 March. The colleagues should send the different activities to the machines superintendents (list available here). J. Ridewood is replacing N. Gilbert for the SPS-related activities.

2. Status of the machines

Linac2 (R. SCRIVENS):
Linac2 had a good week. The only issue to mention is that the intensity of the source is reduced by 20% few times a day. The reason for this is not clear yet. An intervention is planned for the next technical stop.

PSB (B. MIKULEC):
The PSB had a good week.

BT4.SMV10 had to be reset few times, which is quite unusual. The septum will be checked during the next technical stop.

On Monday, the beam was lost in ring3 before being accelerated. This problem had been caused in the past by a wrong execution of the Qstrip GFAs. A first reload of the Qstrip GFAs did not help, whereas a change in the vertical tune followed by a reload of the initial settings cured the problem. Apparently, the GFAs settings are lost in the HW. An OP-issue has been sent to CO.

The resonance compensation by setting the multipoles has been started to increase the intensity on the four rings.

The LHC single bunch beams as the LHC50 are operational. The LHC25, the LHC75 the CNGS and the ISOLDE beams are in preparation.

PS (G. METRAL):
The PS had a good week.

The MPS tripped during the CTF3 fire on Thursday. The cooling water was cut due to the emergency stop triggered by the fire brigade during the CTF3 intervention.

On Friday, a three-hour stop was necessary to repair an electronic module generating the RF trains.

The extraction working point on LHCINDIV was changed to improve the vertical chromaticity. The matching with TT2 was checked to be sure that the optics was still suitable for new working point.

An MTE beam with 2000E10 was extracted with a flat spill. S. Gilardoni mentioned that a beam of 1600E10 have been prepared to be sent to the SPS as soon as possible.

One of the low energy quadrupoles seems to be disconnected in the tunnel. It will be checked during the next technical stop.

Studies of the injection orbit showed that sometimes, depending on the supercycle composition, the MRP can be shifted by 14 mm. Apparently this depends on the programming of the F8L on the other cycles in the supercycle. Investigations on the problem are ongoing.

M. Lamont mentioned that at the last IEFC there was a discussion about the cut of the MPS during the CTF3 fire. A follow-up will be done to separate the two electrical networks.

SPS (E. METRAL):
During the week the energy matching at the SPS injection was done.

The emittances of the LHC beams are measured regularly at every shift and no drift on their values has been observed.

The adjustment of the transverse damper was started with LHC50; this is ongoing. K. Cornelis added that the MTE beam cannot be taken until the work on the transverse damper has not been completed. S. Gilardoni replied that the setting-up of MTE will continue in any case in the PS preparing other intensities than 1.6E13. As agreed with K. Cornelis, a low intensity beam will be prepared, of the order of 300E10, to eventually allow the setting up of the fixed target physic beams in the SPS with the MTE extracted beam.

E. Metral reminded everyone that with LHC50 single batch injection from the PSB to the PS it will not be possible to send 6 bunches to the LHC but only multiples of 12.

The MKP had erratic faults during the week were solved.

The LSDB power supply had a few problems during the week. The piquet had to intervene and to replace it by its spare. C. Mutin added that the power piquet was also called during the weekend for some tests. C. Mutin wanted to remind everyone to try to limit the calls to the piquet only to the strict necessary, since there are a lot of interventions ongoing for the LHC.

CTF3 (D. MANGLUNKI):
On Thursday, a fire on a pulse forming network for the MKS13 required the intervention of the Fire Brigade. Most of the area concerned by the fire has been chemically contaminated by the burnt material and the powder used to extinguish the fire. The cleaning has already started but it will take few weeks. A plan to restart will be organised as soon as possible depending on the SC authorization.

The PHIN in CTF2 has not been damaged by the fire and it will probably restart quite soon.

Concerning the Delay Loop and the Recombiner Ring, without MKS13 the beam will loose ~16 MeV due to the missing acceleration and an additional 14 MeV due to the deceleration in the structure. The maximum energy achievable will then of ~80 MeV to be compared with ~112 MeV in 2009.
This gives a ~18% larger beam, i.e., larger losses in Delay Loop for example. To limit the energy loss, the structure might be removed from the line.

TI (P. SOLLANDER):
A restart of the TIM server will be done on Wednesday for the LHC SIS. The PS access system and the LHC SW interlock system will be not available. There will e perturbations between 12:00 and 13:00.

LHC interface with injectors (M. LAMONT):
M. Lamont presented the status of the LHC. The slides are available here.
So far, the LHC had an up time of a about 40%. Two interventions are needed for the cryo-plants. The first one will take place on Thursday, whereas the second one will take place the 15-16 March. During these periods the LHC will stop. For this reason, the injector technical stop originally planned for the 22-23 March will be advanced to the 15-16 March.
Otherwise, the LHC will request LHCPROBE.

3. Schedule / Supercycle / MD planning

The 2010 schedule (V1.5) is available at:

https://espace.cern.ch/be-dep/BEDepartmentalDocuments/BE/2010-injector-schedule_v1.5.pdf

The CNGS extension has been approved. The run has been advanced by two weeks wrt the previous version of the schedule.
H. Breuker mentioned that there are still technical problems in the CNGS area that need to be solved before the start-up of the facility.

There will be an ion run in the injectors at the end of the year.

The technical stop of the 22-23 March has been cancelled and advanced to the 15-16 March. The interventions will start at 8:00 the 15 March and finish on 16 March at 18:00. The machine restart will be done immediately afterwards to be ready to provide beam to the LHC by the 17 March at 9:00.
The high intensity beams (MTE-CNGS setting up) will stop on Friday 12 March at 18:00 to allow the radiation cool down of the machines. During the weekend, only the LHCPROBE and the LHCINDIV will be allowed in the injectors.
These beams will be stopped for radiation cool-down at 5:00 the 15 March.

All planned interventions are available via the on-line agenda:

https://espace.cern.ch/be-dep/FOM/Lists/Agenda/calendar.aspx.

4. Special topics

a) N. Chohan presented the definition of the different status of the machine versus the different group responsibility. The slide can be found here.

b) R. Brown presented the list of the activities during the technical stop of the 15-16 March for the Linac2-PSB-PS. The detailed list is available here. The list of the colleagues intervening in the tunnel will be sent by R. Brown to OP.
The PS realignment request will be confirmed at the very last moment due to the different problems related to the orbit discovered recently.
N. Chohan mentioned that the list of the people intervening in the SPS tunnel will be available here.
S. Deleval mentioned that, due to the fact that the technical stop has been advanced, a number of interventions have to be postponed.

c) M. Tavlet added a few details to the fire of CTF3. The fire burned completely the Faraday cage. Given the large damages, it was not possible to identify the source of the fire. A few samples have been taken to analyse the chemical residuals. Essentially all the racks of the area have to be cleaned, implying a few weeks down time for the area.
The AUG (arret d'urgence) scheme will be investigated as some of the safety devices did not react correctly. At 12:30, when the Fire Brigade entered the zone, there was already a lot of heat. The alarm was finally triggered by the fire and not by the temperature increase.
N. Chohan asked what burned. M. Tavlet replied at least 0.5 m^3 of plastic material, polyethylene, PMME, PVC tubes, etc…
A part of the chemical contamination is also coming from the powder used to extinguish the fire. The fire brigade used as much as possible CO_2 extinguishers. Then the heat was too intense and then they had to move to the powder, also to avoid any problem with the electrical circuits which were potentially still powered.

A. Blas asked which the burned equipments are. M. Tavlet replied that the damages were much localised to the Faraday cage, with the HV parts and some vacuum pumps seriously damaged.
The DSO is following the interventions.

5. AOB

6. Next meeting

The next meeting will be held on Tuesday, 16 March at 10:00 in 874-1-011.

Preliminary Agenda:

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2) Status of the machines
3) Schedule
4) AOB
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Minutes edited by S. Gilardoni