

Minutes of the 45th FOM meeting held on 23.11.2010

Agenda:

- 1) Follow-up of the last meeting (K. Hanke)
- 2) Status of the machines (Supervisors)
- 3) Schedule (K. Hanke)
- 4) AOB
- 5) Next agenda

1. Follow-up of the last meeting

The minutes of the 44th FOM meeting were approved.

Follow-up from the last FOM:

- a) Status of the PS B-field fluctuations.
New tests have been organised during the Xmas technical stop.
- b) LEIR vistar status. M. Ludwig had solved the BI related problems. Now the remaining issues are under the responsibility of CO.
- c) INCA status: see PS report.

The beam statistics can be found [here](#).

A new web page with the accelerator statistics (beta version) is available [here](#).

2. Status of the machines

LINAC2 (M. O'NEIL):

The Linac had a good week.

The FE of the transformer stopped working, triggering the watchdog of the source. A remote reset of the system did not work. The CO piquet had to intervene and he will follow-up the problem related to the remote reset.

The dips in intensity reported at the beginning of the run have disappeared without understanding thereason.

The cathode and the electrode of the source will be exchanged during the Xmas stop.

PSB (A. FINDLAY):

On Tuesday, the distributor of ring 4 failed. The experts tried to identify the problem, but this was not possible even though investigations continued during two days. As the LHC beams require only 3 rings, but work of the experts perturbed all rings, it was decided to stop the interventions and to abandon ring 1 for the rest of the proton run. The LHC beams could be delivered with the remaining three rings, and wor some

other 4-ring users (AD, ISOLDE) a workaround could be found such that they could run, even though with slightly reduced intensity.
The experts restarted to investigate the issue once the proton run was finished.

ISOLDE (D. VOULOT):

There were no operational problems related to GPS.

HRS was running for ISOTRAP, but suffered a lot from the PSB problem.

ISOLDE will continue to run with stable beam one week after the end of the proton run.

ISOLDE users (M. KOWALSKA):

At least one of the users was happy. The experiment foresaw the irradiation of Ge samples.

There were some problems with the experiment on laser spectrometry, both on the experimental side as well as with a Faraday cup of ISOLDE.

The experiments will continue with long-live isotopes produced by the irradiated target.

PS (S. GILARONI):

The PS had a good week.

The PS delivered a reduced intensity to the SFTPRO and the CNGS due to the problem with the PSB distributor.

During the week there were only few issues related to the RF:

The 80MHz-88 cavity tripped a few times since Monday already, in particular when used for the ions.

The 10 MHz cavity in SS51 broke down and two accesses were needed to fix it.

Concerning INCA, it was not always possible to remove the beam request for some of the users. CO has been informed while the operators found a workaround by using the external conditions.

Concerning MTE, the capture was done without the PFW and F8L at reduced intensity due to the PSB problem. The goal was to check if the oscillation in the capture is produced by the PFW or the F8L. The analysis of the results is ongoing.

EAST AREA (L. GATIGNON):

The beam stopper of DIRAC remained blocked in “closed” position. Thanks to the intervention of the RP piquet it was possible to open it.

After the retuning of the beam, DIRAC and IRRAD were very happy.

EAST AREA USERS (H. BREUKER):

CLOUD will run for 1-2 weeks without beam.

The users would like to thank all the OP teams for the run.

TOF (H. BREUKER):

Nothing special to report.

AD (B. DUPUY):

The AD had a good, despite the problems of the PSB.

The beam was available basically all the time, with a few trims of the emittances on Sunday morning.

AD USERS (H. BREUKER):

The run was a great success.

SPS (E. METRAL):

The SPS had a very good week.

The CNGS run was completed with more than $4 \cdot 10^{19}$ pot.

Between Tuesday and Wednesday, the LHC50 and 75 were delivered to the LHC from Wednesday until Saturday.

On Thursday, beam losses were seen on the scraper. A horizontal bump was used to avoid the aperture restriction.

CNGS (E. GSCHWENDTNER):

The OPERA experiment transmitted their congratulations to the injector complex for the intensity delivered this year.

NORTH AREA (L. GATIGNON):

The COMPASS run of the last week was severely compromised by the PSB problem. There was some confusion about the schedule, related to the frequent changes related to the LHC requests.

COMPASS is requesting to receive timing events during the MD when the SFTLONG cycle is not present in the supercycle.

NORTH AREA Users (H. BREUKER):

The NA61 run will continue with the fragmentation tests.

CTF3:

D. Manglunki objected about the fact that the general power cut tests will take place during the CTF3 run.

F. Tarita replied that it would be difficult to re-schedule the tests now.

K. Hanke replied that the tests were announced well in advance.

F. Tecker added that it will be difficult to switch off and restart some of the oldest equipments before and after the power cuts.

LINAC3 (D. KUCHLER):

Both ovens were refilled on Wednesday. However, it was difficult to re-establish good beam stability. Moreover, the power of oven 1 had to be increased to 10 W. In this case, probably it would be necessary to switch soon to the oven 2. If this would be the case already on Tuesday, a new oven refilling would be necessary before the end of the run.

Concerning the few missing pulses, every time 40 s were necessary before a recovery. There were also a number of break-downs of the ramping cavity.

Actions were taken to minimise at maximum the influence of this problems on the operation.

LEIR (M. E. ANGOLETTA):

The damper sometimes switched off without any clear reason. CO has been investigating the issue.

A. Findlay added that a reset is received sometimes without any apparent reason.

The fast BCT signal disappeared from OASIS. The expert is investigating the problem.

PS-IONS (S. GILARDONI):

A number of tests were done with YASP to correct the injection trajectories. The transverse emittances were blown up upon the LHC request.

SPS-IONS (D. MANGLUNKI):

On Monday-Tuesday the UA9 beam was set-up, and then used for the experiment. A large emittance blow up was observed, of about a factor of 2 on one hour. The origin is not clear. A second run will be done next week but with a coast at 270 GeV/c.

The intensity from linac was reduced but still safe for the LHC physics.

The setting-up for the NA61 run started, with 9 injections from the PS, interrupted often for the LHC filling. The setting up of the line had some problem due to the optics used in the beam steering. Large losses are observed at the beam splitter.

TI (P. SOLLANDER):

There were no particular problems.

There will be a TIM intervention the 2/12 (see mail):

“Date: Thursday 02 December 2010 between 12.00-13.00 PM

Downtime: between 10-20 min

Affected Services: TIM Viewer, GTPM Viewer, TIM alarms transmission to LASER, TIM Web Viewer, TIM Video Viewer, PS access, DIP and JAPC data publishers

Objective: TIM server restart

Details:

This intervention is necessary in order to apply the latest development:

1. Code changes to support a new TIM Trending tool and Data History Player.
2. Functional extension of the JAPC publisher to support sending of the last published value at subscription time.

TIM database applications (MODESTI, HELP ALARM, SMILE, TIM WEB ADMIN) are not affected by the upgrade and will continue to work normally”

LHC interface with injectors (J. UYTHOVEN):

The last week operation was with ions, 21 x 21 bunches. During the ion oven re-fill, the 50 and 75 ns were taken to study the electron cloud. The effect with 75 ns is clearly less important than with the 50 ns. The scrubbing done few days ago turned out to be effective, and conserved its efficiency.

The ion re-start was without any particular problem, with stable beam provided to the experiment for physics. It is not clear if other filling scheme than 4 SPS injection will be tried before the end of the run.

H. Breuker mentioned that ALICE observed up to 8000 tracks and CMS observed the first Z0 from ion collisions.

3. Schedule / Supercycle / MD planning

Version 1.9 of the 2010 injector schedule is available at:

https://espace.cern.ch/be-dep/BEDepartmentalDocuments/BE/2010-injector-schedule_v1.9.pdf

The operation will stop on Monday 6/12 at 18:00.

The piquets available also during the Xmas period are: access, vacuum, CO (LHC).

On 9/12 there will be a scheduled general power cut at 7:00 AM for five minutes. Here a reminder of the various electrical tests (mail from F. Tarita):

“Thu 09/12/10 at 07h00: Test Secours General power cut all sites maximum 10 minutes.

Thu 09/12/10 to Mon 13/12/10: Test Auto Transfer of powers sources. No power cuts expected except for the Meyrin site on Sat 11/12/10 (building 513 et administrative area excluded)

No pulses or power tests allowed and only manual emergency supply in case of external power failures. Team EN-EL-OP in Place or rapidly available.”

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>.

4. AOB

5. Next meeting

The next meeting will be held on Tuesday, 30 November at 10:00 in 874-1-011.

Preliminary Agenda:

- 1) Follow-up of the last meeting
- 2) Status of the machines
- 3) Schedule – 2011 start-up
- 4) AOB
- 5) Next agenda

Minutes edited by S. Gilardoni