Minutes of the 40th FOM meeting held on 25.10.2011

Agenda:

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

1 Follow-up of the last meeting

The minutes of the 39th FOM meeting were approved.

Follow-up from the last FOM:

Pending actions:

Status of the PS-Bfield fluctuation with POPS

The action is on hold since POPS is not operating. Action not closed.

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

All requests for interventions should have been made before the meeting. Action closed

2 Status of the machines

LINAC2 (R. Wegner):

The week was not too bad with a few resets needed (LA3.CRF3 and LI.CRFQ on Friday).

On Tuesday, the problem with LTE.KHZ10 from Friday Oct 21st was solved by a reset of the power supply.

On Friday the power cut affected the LINAC2 and both piquets Vacuum and Power were called to restart power supplies. The cooling water was stopped. Beam was back in the Linac2 at 00:30.

R. Wegner forwarded his thanks to the PSB operators.

PSB (J. Tan):

It was a quiet week.

On Wednesday the RF specialist found issues with C16; a module was replaced to fix voltage spikes and an INCA issue is being followed up.

The harmonic 2 beam with 250 ppb in ring 3 was produced on Friday.

Following the power glitch on Friday, the piquets Power and Vacuum were called. The piquet Power was called again to change 16 fuses for the power supplied of the magnets in the BTP line. The total downtime was long and beam was back at 06:15 a.m...

On Saturday the ejection trajectory was unstable due to a power supply (BE3.DHZ11L1). It was fixed by a local reset.

The piquet First Line did a reset of the CPU of BTY.QFO108. The downtime for ISOLDE was 1h15min.

On Sunday the extraction septum was in standby, and five resets were needed.

On Monday the piquet Power fixed an address problem with the power converter of BT.BHZ10, which may have been the cause of bad ejection trajectories.

ISOLDE (E. Piselli):

It was not a good week.

On GPS, a bad robot calibration point was repaired by the workshop. The target was changed and pumped but a vacuum leak was found on Thursday. The target needed to be exchanged. Vacuum experts (G. Vandoni and S. Blanchard) helped from home and E. Piselli thanked them a lot. K. Hanke reminded that it was agreed that the Vacuum piquet for ISOLDE will be operational in January 2012 (see minutes of the 28th FOM). J. Hansen confirmed.

On Friday, the vacuum was good and beams were ready when the power cut strongly affected ISOLDE (2h to get ISOLDE back).

There were no problems after that running with the old target.

ISOLDE users (M. Kowalska):

The new target is performing worse than the old target. Users are rescheduled for next week and the HRS target is being prepared.

PS (S. Gilardoni):

It was a decent week until Friday.

The 50 ns beam with ghost bunches was prepared on the degraded 25 ns user.

S. Gilardoni asked what the future of this beam is. M. Lamont said that decision on operation with this beam will be taken by the next Chamonix meeting.

On Thursday, 30 min were lost as it took some time to understand that a power supply was left in “consignation” after an electrical intervention in building 359.

After the power cut the PS recovered on Saturday morning. The EAST beam was back at 11:00 as the expert needed to fix the interlock of the extraction magnetic septum.

MDs on MTE continued but the Bfield is not really stable.

East Area (L. Gatignon):

The East Area has been running rather well. There was a power supply problem for DIRAC and a reset was needed after the power cut.

East Area Users (H. Breuker):

CLOUD is running well and DIRAC has now a lower priority.

TOF (H. Breuker):

TOF is fine and back with high intensity.

In order to decrease radiation levels around the water station in ISR8 and in agreement with TOF, a lower limit for the average number of protons on target for nTOF was put in the consigne (1.4e12 instead of 1.6e12). The alarm level has been reduced by RP accordingly.

AD (B. Lefort for L. Botjar):

It was a quiet week until the power cut.

There was a problem to restart the stochastic cooling. Also, an access was organized to check if some equipment was not intercepting the beam. On Sunday it was found out that an MTV was in the beam before the septum. The DSC had stopped and it was difficult to diagnose. This caused 36 h of stop for AD.

K. Hanke said that this problem needs to be followed up by BI. L. Soby took note of this and will ensure follow up within BI.

AD Users (H. Breuker):

AEGIS will take beam next Monday. An agreement was reached for the new schedule with AEGIS and it will be released soon.

SPS (K. Cornelis):

CNGS continued to run with 4 bunch LHCINDIV beams with high intensity, but the duty cycle for CNGS was often reduced as due to special LHC runs (25ns scrubbing, satellites, probes, etc.).
The SPS did not suffer from the power glitch.

2 RF transmitters are running on only one tube and it is hoped they can survive until the next technical stop.

North Area (L. Gatignon):

Not much to report. A problem in the H2 line was fixed. There were lots of user changes yesterday.

North Area users (H. Breuker):

All is doing fine with a nucleon experiment in H2. They are still struggling, and H. Breuker said they should finish by the end of the week.

After replacing part of the PLC, it was the first week without problems with the access system.

CNGS (email from E. Gschwendtner):

“We have started with the LHC typed bunched beam (~2.5-3E11p/bunch, 4 bunches, 500ns separated) already on Friday 21 October evening and we will run like that until 7 November when the technical stop starts.

OPERA will include these results now in the final paper, which they will submit for publication.

Until last Friday, OPERA has collected 7 nu-events, which corresponds to the expected ~1 nu-event/day with that type of beam.

However, whether they can use all of these events is not yet clear, more analysis is needed.

During next week's technical stop we will install diamond detectors in the muon pits that will measure the time structure of the muon spill. There is a huge amount of work to be done, mainly cabling, fiber optics, detector installation; e.g. on Monday afternoon, the cable drums will be transported via TI8 to the muon pit areas. To pass the drums through the vacuum tube has to be removed in TJ8.

That's why we plan to stop with the CNGS beam already on Sunday, 6 Nov evening at 22:00.

On Friday 11.11. we might need still access to the muon pits to test the detectors, so it's currently foreseen to start with CNGS beam on Friday, 11 Nov in the afternoon.

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CTF3 (email from T. Bjorn Persson):

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Monday: We had an access to CLEX to align the laser for start up of CALIFES. In the mean while we continued the drive beam optimization.

Tuesday: Sending beam to TBTS to check the On/Off mechanism on the PETS.

Wednesday: Beam was sent to TBL to measure the produced power in the new PETS.

Thursday: Beam was again sent to TBTS to continue the experiment with the On/Off mechanism.

Friday: TBL was continuing the study of the power produced in the PETS as well as orbit correction.
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CTF3 was hit by the power cut and recovered on Monday.

S. Hutchins said that since there is open access for CTF2, the beam permit was suspended.

TI (P. Sollander):

On Friday, a detection of overvoltage caused the power cut. A control module had tripped and it is now replaced. No perturbation was seen, so it was an internal fault.

LHC interface with injectors (M. Lamont):

Congratulations to everyone are sent after the accumulated 5.6 fb^{-1}.

The cryogenics was down after the power cut.

ALICE was very happy of the run with satellites. It will be decided if it becomes an operational beam next year (Chamonix). S. Gilardoni insisted that, if these beams will be considered operational beams, the diagnostics in the injectors must be appropriate in order to verify that these beams are within specifications. This is presently not the case.

Protons and ions were injected, ramped and rephased together for the first time. Collisions will be done after the technical stop.

IONS

LINAC3 (R. Wegner for D. Küchler):

No problem until the power cut on Friday. Linac3 was restarted on Saturday. The source needed to be restarted again on Sunday.

LEIR (M. E. Angoletta)

It started as a good week.

During an MD, there was a problem to control the LLRF (ppm) with OASIS (non ppm). M. E. Angoletta said that a silent release of OASIS killed this MD. K. Sigerud answered that it was not a silent release as the validation is ongoing since September together with OP. She added that the issue was not with the OASIS server per se but an issue with the RF crate providing the signals for OASIS. As the RF expert was not available to implement the corrections, the OASIS team preferred to roll-back the server and wait for his return. Finally, she said that the newly installed server was validated by OP and that D. Manglunki was aware.

The MD went well.

After the source refill, the ions beam was up to the SPS on Friday at 6 p.m. A couple of days were needed to restore LEIR after the power cut thanks to the intervention of the piquet CO, piquet PO, the extraction septa expert and the damper expert.

PS (S. Gilardoni)

It was a nice week until the power cut.

The synchro problem disappeared by itself.

During the recovery from the power cut, it was difficult to know whether the screen was in or not. The BI expert has been informed and is following this up. R. Steerenberg said that there is a tool made by Fabio. S. Gilardoni thanked the BI and BT experts for the help during the recovery.

SPS (K. Cornelis)

There was an MD last Wednesday to prepare beam for proton ion collisions but only 4 h were usable. Nevertheless, beam was sent successfully to the LHC for the Ld-p LHC MD.

3 Schedule / Supercycle / MD planning

The 2011 schedule (V3.7) is available at:
https://espace.cern.ch/be-dep/BEDepartmentalDocuments/BE/injector_schedule.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

P. Sollander said that work by EDF is planned on Nov. 8th from 7:30 am to 17:00 and it should be transparent.

F. Tarita said that breaking the concrete will happen tomorrow.

4 The second return of the POPS (slides from J.P. Burnet)

The repair was done.

The schedule is:

- Week 44: Restart of POPS on spare magnets (tests are ongoing).
- Week 45: Restart of POPS operation on Tuesday 8 November from 20 h after 4 h of pulsing with no access from 16h.
- Winter stop: Replacement of the last Multicontacts on the 2 AFE and installation of 7 new fire detections.
- Maintenance will occur in January as planned.

5 Final list of interventions for the next technical stop

The interventions in LINAC2, AD, PSB and LEIR can be seen on the webpage:

https://espace.cern.ch/rpps/wdp/Lists/Interventionlist/Active.aspx

PS (slides by R. Brown): R. Brown said that he expects the interventions will be finished at 16:00 to allow for POPS pulsing. From 20:00 to midnight, there is an MD in the PSB and beam will be available for setup in the PS only at midnight.

SPS (slides by D. McFarlane): D. McFarlane sent the planning before the meeting with all changes with respect to last Tuesdays FOM shown in green. There are not many changes.

H. Vincke and J. Vollaire gave the RP recommendation for the stop of beams. Due to an intervention in LSS1 next to the dump, LHC beams with intensities above 1E12 p per extraction are also considered high intensity beams and this should have caused major changes in the MD planning before the technical stop. However, the MKDV problem that stopped the SPS for more than 24 h on Thursday after the meeting allowed doing the intervention so that this problem was waived.

As a consequence the time stops for the various beams are:

- Stop of high intensity beams (TOF, CNGS and SFTPRO) on Monday at 8 a.m. (CNGS is anyway planned to stop at 22:00 on Sunday).
- Stop all other beams on Tuesday at 5 a.m. (3 h before the TS).
- ISOLDE beams should be stopped at 5 a.m.

F. Tarita asked when the SPS mains will be out and the answer was 5 a.m.

6 AOB

K. Kostro said that there will be some work on a database between 9:00 and 9:30, which should not give a cut for more than 5 s.

7 Next meeting

The next meeting will be held on Tuesday, 8th November at 10:00 in 874-1-011.

Preliminary Agenda:

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Minutes edited by B. Salvant