Minutes of the 22nd FOM meeting held on 28.06.2011

Agenda:

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

1 Follow-up of the last meeting

The minutes of the 21st FOM meeting were approved.

Follow-up from the last FOM:

Pending actions:

Problems with POPS (3 actions)

Studies will be resumed when POPS is back. Actions not closed.

Analyze the frequent trips of PSB cavities and steerers

S. Deleval said that the cause of the problem may have been found. Tests are needed during the next technical stop to confirm. S. Deleval added that a pressure reducer may be involved. Action not closed.

Indicate beam stop times for the next technical stop

See schedule. Action closed.

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

Action closed.

2 Status of the machines

LINAC2 (M. O'Neill):

On Thursday: beam losses were observed after the first bending magnet. Beam ok since Friday

A resettable trip of the RF occurred on Sunday.

On Tuesday quadrupole LA1QDN53 of tank 1 failed, again due to a problem with the auxiliary power supply. Several auxiliary power supplies will be changed during the technical stop.

Source dips have not reappeared. This will be investigated during the technical stop.

LINAC3:

Source tests are ongoing. Ions are now up to the RFQ.

PSB (B. Mikulec):

It has been a difficult week for the PSB:

On Tuesday a specialist intervention for the slow bumper at extraction caused 1h of downtime.

On Wednesday, the PSB came back right after the restart of the MPS. In the evening TI requested to change a cable to switch back the MP7 line that tripped after the thunderstorm. For this intervention, the Meyrin filters had to be switched.

On Friday, the LHC complained that emittances on LHC50 were too large and these could be adjusted.

Since Sunday morning the extraction septum BE.SMH15L1 tripped many times causing hours of accumulated downtime. The Piquet power first changed a fuse and warned that the increasing temperatures might change the cables resistance and it might become necessary to adjust the filters again. The card for temperature compensation was changed afterwards, but the septum continued to trip. Beam was put back 3h later, but it tripped once more. There is now a special procedure to reset the septum. D. Nisbet said that it seems to be the same problem as last year. It was thought to be an electromagnetic compatibility issue, but the problem could not really be solved last year. Specialists are investigating. Local reset worked, but it trips continued. More monitoring is needed as current signals are not enough to diagnose the problem. There is a need for a short stop.

Besides, on Monday early morning, the C04 cavity of ring 4 tripped, and the amplifier was replaced by the specialist causing 3h of downtime.

Usual trips of BT3.DVT40 and C16 also occurred as well as trips of extraction kickers of ring 3.

Finally, beams were readjusted for LHC and SPS MDs and progress is being made with INCA.

ISOLDE (E. Piselli):

Excellent week, nothing to say.

ISOLDE users (M. Kowalska):

M. Kowalska confirms that it was an excellent week. In addition the intervention for the robot will occur tomorrow as the spare was available from the manufacturer much earlier than expected.

Solid state and biophysics experiments took place and users are happy.

Setting up for REX, which should take beam until Monday.

PS (A. Grudiev):

It was more or less a good week.

The PS restarted 2.5h after the strike due to a timing issue. The problem was found to be a rack that was not powered.

The piquet PO was called to fix the injection septum 42 that did not pulse.

The thunderstorm caused a power glitch on Wednesday, but only 10min downtime as the MPS could be reset.

On Thursday the Piquet PO was called to fix the SMH16.

On Sunday, septum 57 was on fault and there was no beam for the East zone for 1.5h. It is due to a temperature interlock that could not be reset. No definitive solution was found yet.

On Monday at 5am there was no beam for CNGS, SFTPRO and AD due to timing problems, which caused 1.5h downtime. A pulse repeater was replaced by the LLRF piquet ahead of a definitive repair by CO.

Piquet First line had to intervene for an EASTA beam problem.

The intervention on FA61 will profit from the SPS stop. Rende added that the aim of this intervention was to check the vacuum chambers for the exchange during the technical stop.

There is a problem for CLOUD when AD takes one of the EASTA cycles. It was agreed with H. Breuker that only EASTB would be on spare with AD. It is also to be noted that this means a reduction of 10% for DIRAC during days of CLOUD running.

East Area Users (H. Breuker)

There is nothing more to report.

TOF (H. Breuker):

TOF is happy.

AD (T. Eriksson for L. Bojtar):

It was a very good week for AD.

On Wednesday and Thursday there were stochastic cooling power supply problems, which disappeared by themselves.

The specialist was called on Sunday for lower intensities in ASACUSA, but the machine stabilized by itself.

AD suffered from PSB problems on Sunday and Monday (11h were lost).

The access system is being reinstalled in the DEM zone. It was finished around noon, but had to wait for beam permit.

There were no problems setting up ACE. By the evening, physics had started.

AD will now use shorter cycles, which fit nicely the 38 basic period PS supercycle.

AD Users (H. Breuker):

SPSC will visit the AD hall on Wednesday afternoon.

SPS (K. Cornelis):

It was a very bad Tuesday night. There was a problem with a module in the RF loops. It was changed and works now.

On Tuesday the vertical tune had also changed by a big amount. The problem disappeared like it came.

On Wednesday, there was the strike and the start of HIRADMAT commissioning, which will finish today with LHCPROBE.

There were frequent problems with the interlock for TT40 (CNGS and LHC). A CPU was changed for the second time. This is working now.

Thunderstorms forced to stop operation to protect the power supplies.

As LHC was not on, the QS was repaired during 2h.

Not so many problems occurred during the weekend.

Yesterday one of the main power supply stations had a problem. It is yet another short on an 18kV cable. F. Tarita added that it is around the BA2 area and that the exact location is being searched.

The SPS is now running with a reserve for main dipoles and quads.

F. Tarita mentioned that the work to redo the false floors (originally foreseen for the technical stop) can also be done during the SPS MD as they expect no impact on operation.

North Area

K. Cornelis mentioned that there is a ventilation problem with the spectrometer of COMPASS. It could not work before 9pm on Monday.

North Area users (H. Breuker)

There is a an access issue with H8 upstream as one can take a key even though the "beam on" sign is flashing... This repair is being followed up.

There was no info from the French fraction of CALICE in H2.

H4 IRRAD is running fine.

On H6, CERF stopped the experiment for the German fraction of CALICE.

The DREAM experiment gave beamtime to ATLAS.

Users announced the 2010 data analysis.

CNGS:

No report.

CTF3:

No one was present. CTF3 will run during the technical stop.

TI (P. Sollander):

Nothing to add.

LHC interface with injectors (M. Lamont):

The maximum number of bunches with LHC50 were injected and collided last night with LHC50 for a new record fill luminosity. The plan is 90m unsqueeze for TOTEM and then the LHC MD program.

3 LHC MD (G. Rumolo)

Presented slides

The only exotic beam requests are the LHC25 and the MD4 single bunch with high intensity and small emittances.

H. Breuker asked if there was a plan to use LHC25 for operation. M. Lamont answered that normally LHC25 may be requested but will not be operational this year.

4 Schedule / Supercycle / MD planning

The 2011 schedule (V3.0) 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

MDs will start at 8am.

BLM tests in the PSB will occur during the day and not during cooldown.

MDs are planned to stop at 5am.

The dedicated UA9 run after the technical stop will be from 8am to 8am.

The MDs in week 35 will be reshuffled.

No physics will occur in the SPS during the MDs, but maybe in PS and some beam for ISOLDE.

Beam stop times (M. Widorski):

RP will start Tuesday at 8am with LINAC2. M. O'Neill reminded that cutting the RF should be done according to the procedures.

High intensity beams should be stopped 24h before (i.e. 8am on Monday): TOF, CNGS, FT.

Beam should be stopped at midnight for the EAST area.

All other beams should be stopped at 5am.

LINAC2 can restart once all their interventions will be finished with beam going to the LINAC2 dump. Once there will be no more accesses in the PS (+PSB), the CPS can restart again (planned for around 5pm on Wednesday).

5 Final list of interventions for the technical stop

LINAC2 (M. O'Neil): document from C. Mastrostefano

Everything fits in 1 day.

S. Deleval mentioned a short water stop on Tuesday.

AD and PSB (N. Gilbert): link to intervention list

These are all inspections apart from pulsing the distributor. Fencing will be placed around the intervention site.

Water will be stopped by CV on Wednesday, also for AD.

B. Mikulec said that one intervention on wire scanners from BI is missing on the list. L. Soby will contact his colleagues.

PS (R. Brown): slides

The magnet exchange represents the major work lasting all day on Wednesday. The important point is when the beam will be stopped.

There is also a change of a pickup in a hot area and work around the septa (followed up with RP).

This time everybody has to make his own request for access (valid for all machines).

L. Soby mentioned there might be another request for OP to check a dipole type.

SPS (D. McFarlane): slides

The lift maintenance will be moved to Wednesday in BA1.

In BA5 it is not sure that the 2-day consignation is vital. D. McFarlane is waiting for clarification.

The consolidation of 18kV cables has no impact.

In BA6 the pulsing has no impact on anyone else. It has to be seen if it is vital for this technical stop.

K. Cornelis said that BI wanted to also intervene on the wire scanners. L. Soby will follow this up.

The SPS will be using the full 48 hours (only one job actually).

CO

K. Kostro mentioned several CO interventions (which are in the online agenda)

There is a 'note de coupure' as the DNS domain name server will changed on the 5th morning and

On the 6th changes on the browser.

There will also be a change on the machine DB (10 min interruption).

6 AOB

No AOB.

7 Next meeting

The next meeting will be held on Tuesday, 5th July at 10:00 in 874-1-011.

Preliminary Agenda:

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2) Status of the machines
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Minutes edited by B. Salvant