Minutes of the 38th FOM meeting held on 05.10.2010

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 37th FOM meeting were approved.

Follow-up from the last FOM:

a) Status of the PS B-field fluctuations.
This issue is still under rediscussion. A new set of measurements will be performed.

b) Status of Linac2 radiation survey.
Measurements are ongoing. If certain values will be exceeded, visits in the Linac2 source area will have to be stopped or limited (controlled area, <50 μSv/h; <10 μSv/h for visitors). The situation seems to be fluctuating, as levels had already returned to normal values, but then increased again since the weekend. The PAXS23 radiation alarm is mainly due to neutrons. There are some indications that the origin might be around tank 3 (to be confirmed). A report and RP recommendations will be presented at the next FOM.

c) Status of ISOLDE cooling station.
The situation will be reassessed during the upcoming target change on Thursday. The parameters are being logged and some conclusions might be expected for the next FOM.

d) Status of CNGS ventilation.
A problem with a wheel dehumidifying the air could be identified and will be fixed on Thursday.

e) Interlock in case of ISOLDE air ventilation failure.
A meeting took place last week. It has been concluded that no alarm needs to be implemented in the access system, and that the conditions for the safety chain do not need to be modified. For the short term, procedures for the access into the zone will be prepared by R. Catherall. A long-term solution is under study.

f) Varilog/Passerelle with INCA installation.
A test version is under evaluation. The deployment of an operational version is expected by the middle of this week.

g) INCA status.
Improvements are ongoing. See PS report for more details.

2. Status of the machines

Linac2 (F. GERIGK):
Apart from the PAXS23 radiation issue (see follow-up section) there is nothing to report.

PSB (G. RUMOLO):
There have been two machine stops this week. During the night from Wednesday to Thursday the MPS tripped with a ground fault and had to be reset by the specialist. The second stop was due to an electrical fault on Friday (see TI report).
The new ISOLDE watchdog electronics is under test.

ISOLDE (P. FERNIER):
Good week for ISOLDE with all 3 machines running well.
GPS was doing collections for users on the GLM line.
HRS and REX running for the MINIBALL experiment with an Ar beam. The beam has been available from Thursday evening, and the experiment will continue taking data until Monday next week.
The general efficiency was good and only small technical problems occurred during the week.

ISOLDE Users (M. KOWALSKA):
K. Hanke officially presented M. Kowalska, who is the new ISOLDE physics coordinator since the 1st of October, taking over from A. Herlert.

The sharing of protons worked well. GPS was running collections until Friday when HRS took over. HRS had in the beginning some troubles with contaminants, but running the separator in high-resolution mode could attenuate the problem.

PS (G. METRAL):
On Tuesday all the beams were stopped for 1.5 hours because of a MPS trip. The MPS had to be put off for an electronics card exchange, as the IMPS signal was not displayed on the Vistar. Due to an INCA problem this operation could not be done through the application, but only locally in manual mode. A problem during the MPS restart led to the downtime of 1.5 hours.

No beam early Thursday during 1.5 hours due to the PSB MPS problem.
Later on Thursday an access was required to change a gap relay on C46 (10 MHz cavity), resulting in a beam stop of 1h.

1.5 hours lost on Friday because of the already mentioned problems of the electrical distribution in Meyrin.

On the MTE front, measurements are ongoing and focused last week on the low-energy correctors.

EAST AREA (L. GATIGNON):
Quiet week.
DIRAC: The regular trips of one quadrupole could be cured by changing a 24V power supply.
The T11 beam line for CLOUD will be taken into operation next week.
L. Gatignon announced a stop of the East Area this Tuesday afternoon from 1:30-4pm for an intervention.

EAST Users (H. BREUKER):
The NA62 run was extended until Thursday to finish the tests with the Gigatracker electronics.
The experiment for the particle identification upgrade for ALICE is struggling with some problems.

TOF (H. BREUKER):
TOF started running with a gold target yesterday.

AD (J.C. OLIVEIRA):
Rather quiet week with a beam availability >80%.
Friday morning a problem occurred with the injection power supply (DI.DHZ6045), which could be solved by the piquet First Line.

Saturday evening a vacuum valve closed in the extraction line because of bad vacuum levels. The vacuum piquet could restore normal operational conditions. J. Hansen stated that the observed pressure rise was most probably due to some (unknown) activities of the ATRAP experiment resulting in the closure of a vacuum valve.

Several problems showed up during the week with a 10 MHz cavity. As there are two 10 MHz cavities available, beam could still be delivered, but at a reduced efficiency. The RF specialist could solve one problem after the other.

AD Users (H. BREUKER):
News from ASACUSA and ALPHA concerning anti-hydrogen trapping results are being awaited impatiently.

SPS (D. MANGLUNKI):
The LHC has been fed with 2x8 bunches throughout last week, while CNGS reached 3.3E19 pot yesterday (10% ahead of the 2010 goal).

Measurement on the MTE beam took place on CNGS2 between Friday and Sunday to try and investigate the stability of the beam.

The already mentioned electrical problems on Friday on the Meyrin site only affected the RF transmitters in the SPS. The assumption was made that this could be due to some frequency perturbation via the LHC, which was also partly concerned by the electrical problems.

Concerning the technical problems, a fan needed to be replaced on the RF transmitter 4. Access to the door 134 in the North Hall could only be given with the application

running on the console in the CCC, but not by the users through CESAR (fixed by now).

The MPS tripped during the night between Saturday and Sunday. The faulty unit had to be replaced by its spare and still requires repair.

Also during the weekend, the 800 MHz cavity tripped. The OP team could solve this problem under piquet guidance via the phone.

After many trips of RBI.610405, a whole thyristor bank was eventually changed, but the specialists were not really able to identify the source of the fault yet. Afterwards the power supply tripped again at least once. This is being followed up.

NORTH AREA (L. GATIGNON):
The access problems have already been mentioned in the SPS report.
COMPASS had at some point even too much intensity for their read-out electronics, which was then reduced.
Friday evening the 'beep' tone during the slow extraction from the SPS disappeared, but this is fixed by now.
For COMPASS the flat top indication changed its length on the SPS page 1 during a while, which led to some confusion (also fixed).
H8 changed from primary to secondary beam mode yesterday.

NORTH AREA USERS (H. BREUKER):
TOTEM started yesterday. There might be a need to remove some time from the ATLAS Upgrade program in case the decision will be taken to go forwards with the TOTEM installation during the coming shutdown. In that case the total length of the shutdown might have to be increased by two week.
LHCf will start next week. In principle their measurement program finished in June, but they need a calibration run to publish the π^0 cross-section at highest energy.

CNGS (E. GSCHWENDTNER, email):
Access is planned for Thursday to repair the ventilation unit. Beam for CNGS should stop before at 00.00 on Thursday.

CTF3 ():
No report.

LINAC3 (F. GERIGK):
The mechanical workshop delivered the new mechanical piece for the source (leaking bellow) that could be installed. The source was restarted on Wednesday, and tuning happened on Thursday. Since then, the only small problem to mention was one fault on tank1.

LEIR (D. MANGLUNKI):
On Wednesday morning D. Chapuis implemented the modifications to the safety conditions allowing again visitors on the platform in the presence of beam.

D. Manglunki thanked the SPS crew as they restarted Wednesday evening the machine after beam from Linac3 became available.

On Monday the LL-RF specialists tuned the RF to work also with the spare cavity CRF41. The transformer for this cavity is known to be unreliable and will hopefully be replaced next year, but this allows having a working spare for the remaining weeks of this year.

Very few problems to note: a few trips of CRF43, no more mysterious polarity inversions of ETL.BVN10-EJ.

PS with ions (G. METRAL):
G. Metral pointed out that with parallel ion operation the LHC 150ns beam will be less stable.

SPS with ions (D. MANGLUNKI):
D.Manglunki thanked all the intervening team who worked hard to fix the vacuum leak at the Linac3 source, allowing the SPS to start taking the ion beam 40 hours earlier than anticipated. The ions were available on Wednesday afternoon. This allowed verifying that the modifications to the LL-RF were effective; the beam could be accelerated the same evening to the flat top at 177 GeV/u. The commissioning of the beam control went on until Friday and successful rephasing was performed.

There are still a few issues to be tackled, but the situation is progressing.
The beam will again be taken tomorrow for three days. Thursday from 8am-6pm a dedicated MD will take place.

TI (J. NIELSEN):
Last week there were quite a few perturbations. Some of those were related to the supercycle change in the SPS. This is under investigation. The LHC ramp seems to have some influence as well.

On Friday there was a problem with the filters for the LHC and the Meyrin site. A transformer has been switched off by EDF (not announced in advance).

LHC interface with injectors (no representative present):
K. Cornelis reported that on Monday 200 bunches could be injected into the LHC for physics.

3. Schedule / Supercycle / MD planning

Version 1.8 of the 2010 injector schedule (V1.8) is available at:
https://espace.cern.ch/be-dep/BEDepartmentalDocuments/BE/2010_injector_schedule_v1.8.pdf

On Thursday a floating MD will take place (24h starting at 8am). Mainly SPS users will be affected, but the physics delivery from the PS will be reduced as well.

A request was made to add a fragmented ion beam test in week 48 and some time for UA9. It has been decided shortly after the meeting that

- LHC filling has in any case priority

- NA61 running with fragmented ions can be extended into week 48
- Nights could be devoted to UA9. K. Cornelis still needs to check if the power consumption for cooling water and electricity would be acceptable for the 120 GeV coasts for UA9.

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

The SPS machine superintendent will launch a request for information concerning the upcoming technical stop activities (week 44) this week.

5. Next meeting

The next meeting will be held on Tuesday, 12 October at 10:00 in 874-1-011.

Preliminary Agenda:

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Minutes edited by B. Mikulec