Minutes of the 35th FOM meeting held on 14.09.2010

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 34th FOM meeting were approved.

Follow-up from the last FOM:

a) Status of the PS B-field fluctuations.
R. Steerenberg said that no further progress has been made.

b) Status of PSB-SEMGRIDS in measurement line.
The SEMGRIDS have been fixed during the access that took place on Monday.

c) Status of ISOLDE WS vacuum controls.
E. Piselli reported that the PVSS expert could fix the problem. Contrary to what has been reported during the last FOM, the VCS expert following the issue is not G. Vandoni.

d) Establish procedure for support for PVSS ISOLDE vacuum control system.
J. Hansen and K. Kostro reported that a procedure is going to be established soon. The responsibility for the support of the vacuum controls will be within the vacuum group, whereas the general PVSS support will be provided by CO.

e) Implement position interlock for ISOLDE primary proton beam.
A meeting will the ISOLDE experts will take place next week to discuss the new interlock. K. Hanke added that the interlock should be flexible enough to allow changing the beam parameters during the setting up.

f) Status of GPS FE HV and extraction line.
D. Voulot reported that the electrode of the FE has been changed and some HV tests took place. Unfortunately the maximum voltage is limited in any case to 40 kV, whereas the next runs were planned at 50 or 60 kV. It was finally decided to continue the run with the limited voltage until the end of the year, since the replacement of the entire FE is foreseen for the next winter technical stop (t.b.c.).
M. Kowalska added that the next physics runs will not be spoiled by the reduced high voltage.

g) Status of beam instrumentation in the PS (orbit, tune, BWS).
R. Steerenberg reported that discussion with BI is ongoing, in particular for the BWS.

K. Hanke stressed that the problems related to the BWS have been there now since many years.

h) General INCA status. See next points.

i) INCA PPM and archiving status and j) INCA - updating of configuration database. R. Steerenberg reported that the two problems are being followed-up together with CO. The problem which caused the corruption of the 1 bp users of last week has been solved, but the ppm copy is still not fully operational. R. Steerenberg will report to the next FOM about the INCA status, in particular about the PPM copy and the archiving.

k) TT10 hot spot update. H. Vincke reported that, according to the last measurements, there are still about 3.6 muSv/h in correspondence of the hot point. A preliminary analysis of the dosimeters show that the dose is not due to new losses and that it is very localised.

l) Status of emittance measurements in LEIR at extraction. The profile monitors have been fixed and tested.

m) Status of AD bunch length. T. Eriksson reported about a slight improvement in the bunch length. The reason for this has not been understood. There is going to be an MD for the bunch length studies. Currently, the bunch length is about 200 ns whereas should be about 100 ns. The average bunch length realised in past runs was about 150 ns.

The beam statistics can be found here.

2. Status of the machines

Linac2 (A. LOMBARDI):
There were two trips of the debuncher that could be reset remotely.

On Friday morning there was a radiation alarm in the Linac control room. The alarm disappeared once the CNGS beams were removed from the supercycle. The alarm did not reappear after the restart of the CNGS.

On Monday, one of the cooling modules had to be exchanged. This was transparent to beam operation.

K. Hanke added that the radiation alarm was not understood. During the alarm, no exceptional losses were observed.
H. Vincke asked if there are other monitors in the control room to cross check the one triggering the radiation alarm. K. Hanke replied in the negative.

PSB (K. HANKE):
The PSB had a good week.

On Tuesday the recombination kicker tripped due to an interlock from the oil pump power supply. The expert fixed the problem, but one kicker remained with a bad external condition. Rebooting the DSC solved this problem.

On Monday morning at 7:30 all beams were stopped for the scheduled accesses. The pre-driver of the C16 cavity has been changed for a spare but after some tests, the original one was put back in place. The RF expert finally found the source of the problem of the pre-driver, but it would need another access to fix it.

The SEMGRIDS in the measurement line have been repaired.

After the interventions, the machine could not be immediately re-started due to a vacuum interlock generated by the recombination kicker. The vacuum, however, was pretty good and of the order of 10^{-9} mbar. The vacuum expert could eventually restart the kicker.
J. Hansen added that an access would be necessary to check the cabling of the vacuum interlocks.

The tomoscope was blocked due to un-availability of Mathematica licences. A. Bland contacted IT to release some of them; in particular one of the users was reserving about 20 licences on the 40 available. Discussions with IT are ongoing to have four dedicated licences for OP.

On Tuesday at 6:00 AM, the recombination kicker went off again due to an oil temperature interlock. After a series of tests, it turned out that the temperature sensor was broken. The interlock was bypassed by the exepert. BT is presently trying to find a new temperature sensor.

ISOLDE (D. VOULOT):
There was a renewed failure of the target cooling station. The failure was not understood but took place during the target exchange. The system was switched to the backup reservoir. However the target thermo shock might create damage. A series of tests were done to investigate the issue. Some flow switches were found with wrong settings as some flow interlocks were programmed at wrong levels.

The RFQ RF amplifier had a failure. With the help of the expert via telephone, it was managed to switch to the spare. K. Hanke added that this equipment should be replaced in the future with a more standard one, also because there is only one expert of the system.

There were a few controls problems during the weekend.

HRS: there was a successful run using gold. The required isotope could not be produced in the past.

ISOLDE users (M. KOWALSKA):
The gold beam could be delivered thanks to the extra-target heating.
The run was very good on the technical side. Concerning the physics, the isomeric states (goal of the run) were not observed. This would be already a result since it is not sure that they exist.

The run was done at 40 kV.
The offline run suffered from some network problems. E. Piselli mentioned that some PLCs were badly declared on the network database, having two of them the same IP address.

PS (R. STEERENBERG):
The PS had a busy week.

The 10 MHz cavity in SS76 tripped a lot of times. The expert will intervene in case of further problems.

Repeatedly bad extractions caused some radiation alarms. The problem appeared a few times, but rarely enough to make the debugging of the problem very difficult.
It was observed that in some cases the AQN of the SMH16 was giving a NAN rather than the septum current. Investigations are ongoing.

On Tuesday, it was noticed again that depending on the supercycle composition one of the quadrupoles of the string in TT2 was not cycling correctly. This caused losses on the TOF beam. The EPC expert will be back next week; in the meanwhile some supercycle compositions are to be avoided.

The INCA server was blocking from time to time due to the old application controlling the low energy working point. Investigations are ongoing also to understand why a failure of the INCA server was not detected by DIAMOND.

On Tuesday and Wednesday, the expert of the supercycle editor application had to intervene since the application was not working any longer. The problem was related to the change of access rights for some files.

On Sunday the TT2 security chain tripped during an access in the nTOF area.

On Monday there was the access mentioned in the PSB report.

The work on MTE continued, in particular to recover the user after the PPM copy crash of last week. The beam was later sent to the SPS but unfortunately the steering in TT10 turned out to be not straightforward. Half of the pickups of TT10 are no longer working correctly for all the beams.

On Tuesday the RF piquet had to intervene for a problem related to the RF train. A jitter on the RF train was causing a bad pulsing of the extraction elements. This intervention might also have solved the problem with the radiation alarms.

K. Kostro said that the problem with the INCA server has been solved.

EAST AREA (L. GATIGNON, mail):
“In the East Hall only DIRAC and IRRAD are running, with a CLIC group (CALICE-WHCAL) parasitically using some muons in the T7 secondary zone.
So far everybody is running happily”

EAST AREA USERS:
No report.

TOF:
No report.

AD (D. DUPUY):
The AD had a very good week, with very stable beam and good intensity.

AD USERS (T. ERIKSSON):
The ALPHA experiment is vey happy.

ASACUSA has stopped and their beam time has been allocated to other users and MDs.

SPS (E. METRAL):
The MTE injection setting up continued, with a lot of difficulties due to the faulty pickups of TT10. In fact, the last five pickups of TT10 are not operational for all the users.

On Wednesday, the setting up of the ions with new RF hardware started.

The problem with the cooling in BA3 was solved.

On Thursday evening, the SPS suffered as the other machine from the problem related to the supercycle editor.

On the LHC3 cycle, the one used for the multibatch injection, a small energy error has been found at injection. This has been corrected since the 40 MeV energy error is already large for the LHC (nom. extraction at 451.19 GeV/c whereas it was at 451.15 GeV/c).

On Monday, the setting up of the cycle for the new gamma transition optics continued.

CNGS (E. GSCHWENDTNER):
The facility is running fine.
There was a stop to recalibrate the horn current.

NORTH AREA (E. GSCHWENDTNER):
There were a few problems during the week concerning: a) a radiation alarm in H8; b) the water pressure on one of the magnets; c) one of the collimators.

NORTH AREA USERS:
No report.

CTF3:
No report.

LINAC3 (A. LOMBARDI):
The source had to be retuned after a drop of beam intensity.

Between Thursday and Friday the source tripped a few times.

On Monday the oven was refilled and the beam was already available late in the evening.

The intensity values quoted by the transformer are lower than the one reported by the samplers.

LEIR (M. E. ANGOLETTA):
LEIR had a good week. LEIR operation has taken the rhythm that it will have until the LHC will take ions, i.e.:
a) every Wednesday, Thursday and Fridays the beam is sent to PS/SPS for the beam setting up.
b) every other Monday the oven will be refilled. This means that the beam will be available in LEIR again typically from Tuesday onwards.
M. E. Angoletta wanted to thank D. Kuchler since the beam was available already on Monday afternoon after the last oven refilling, even if the intensity was a bit low to a debuncher problem.

Last week the beam was sent to PS/SPS on Wednesday and Friday. No requests were made for Thursday (jeune Genevois).

The BE/BI experts profited from the PS access on Monday morning 13/09 to repair the LEIR SEMGRIDS located in the ETL line. These SEMGRIDS measure the emittance of the beams sent to the PS. After the intervention, the SEMGRIDS were tested and everything seems to be fine.

PS-IONS (R. STEERENBERG):
The ion beams are in good shape.

The injection steering is not yet available due to a problem with the model of the injection optics and the wrong bunch selection in YASP.

SPS-IONS (T. BOHL):
The setting up of the beam started.

TI (P. SOLLANDER):
F. Tarita mentioned that the BA3 problem mentioned in the past was due to a human error. During the switch from a circuit to another to allow some maintenance there was a bad manipulation. This caused the stop of the air conditioning in the CCC and the computer room.

LHC interface with injectors (M. LAMONT):
The commissioning of the LHC with bunch train is progressing well.

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

The floating MD of week 38 will be limited to 16 hours. The exact start time remains to be confirmed.

The draft of the 2011 schedule will be presented at the next FOM.

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, 21 September at 10:00 in 874-1-011.

Preliminary Agenda:

1) Follow-up of the last meeting
2) Status of the machines
3) Schedule; 2011 draft schedule
4) Special topics: status of INCA (R. Steerenberg)
5) AOB
6) Next agenda

Minutes edited by S. Gilardoni