Minutes of the 2nd FOM meeting held on 26.01.2010

Agenda:

1) Follow-up of the last meeting (B. Mikulec)
2) Status report of machine superintendents

   Problem with the motor generator set of the PS MPS (K. Kahle)
3) Schedule (B. Mikulec)
4) AOB
5) Next agenda

1. Follow-up of the last meeting

The minutes of the 1st FOM meeting were approved.

a) Open actions from last FOM:
   Solve scheduling issues in North Area related to AMS run and cooling circuit maintenance. See Schedule section.

b) Verify in detail if all CO equipment (in particular RF pulse repeaters, OASIS,...) in the old MCR room works correctly.

It was confirmed that the control of the internal dumps of the PS had been moved to another building and that the hardware still present in the MCR room was no more operational. B. Mikulec has contacted the responsible of this obsolete hardware and asked him to remove it.

The tests of the OASIS racks and the RF repeaters have started. So far the task force composed by CO/OP and RF colleagues has found no problems. Also the distribution of the timings seems to be OK by now. The only known remaining issue concerns the distribution of the Btrain UP.
During the flood, the cables of the access system received so much water that some of the connectors were damaged. D. Chapuis mentioned that the connector repairing is in progress, starting from the connectors controlling the access doors of Linac2/PSB/PS and TT2. Once these interventions will be finished the EAST hall and the ISOLDE access systems will be fixed as they contain EIS elements of the LHC injector chain. The CTF3 and the AD target area access systems will be repaired as soon as possible. The doors that cannot be remotely controlled are mechanically locked.

A summary of the BE-CO interventions in the old MCR room has been provided by M. Vanden Eynden (available here).

2. Status report of machine superintendents

Linac2 (C. MASTROSTEFANO):

On Thursday the Linac2 was patrolled and the HW tests started. The doors were closed mechanically.

The source was turned on the 18th of January for the conditioning. The intensity delivered so far is about 280 mA, with the number of sparking decreased from 10 per day to about 3 per day. The work on the RF has to be finished, in particular on the RFQ.

The quadrupoles in the tanks have been powered and their adjustment started. The DSO tests are planned for next week.

B. Mikulec asked if the interventions were on schedule. C. Mastrostefano replied in the affirmative.

S. Gilardoni asked if, following the problems with the RFQ vacuum of last year, the vacuum levels were correct. G. Vandoni replied in the affirmative.

PSB (B. MIKULEC):

The testing of the different PSB subsystems is progressing. All the shutdown works are on schedule. The only small issue worth to mention is that, due to a problem with the tunnel lightening, some of the works have been postponed from Friday to Monday of this week. This problem was caused by a short of the overhead crane when being in a certain position. The repair will be done probably only during the next shutdown.

On Tuesday after the FOM, the visuals inspection of the main magnets will take place and, after the powering tests, the covers will be put back in place on Wednesday.

The polarity tests of the magnets in BTP, which were exchanged, will be done before the end of the technical stop.

PS (R. BROWN):

K. Kahle presented the status of the MPS after the problem of last week. The motor of the rotating machine was put in operation with the carbon brushes retracted from the slip rings. This caused arcing and damaging of the slip rings. After inspection, the main motor and the generator did not show any damage. However, the slip rings have to be exchanged with their spares, available for installation. This work, done together with the Siemens technicians, will take at best two weeks, but it risks to be up to four weeks in case that the entire motor has to be removed for the repair. This will be known in two-three days.

The PS has to restart being powered from the 13 MVA transformer. In this case, the power is taken from the 400 kV line, and, via the SPS compensator, the PS is fed by the 13 MVA transformer. The SPS can be powered without any limitations, whereas the thermal limit on the cables on the PS side imposes some constraint on the PS cycles. The SFTPRO-(14 GeV/c)-like cycles are not affected by any limitations, but the LHC type cycles are going to be limited to 4 pulses per minute due to the RMS power limit.

Unfortunately, during the powering tests of the 13 MVA transformer, some cables between the transformer and the PS burnt. The repair will take 2-3 days and the power is expected to be available for the PS by Friday, if no further damage will be diagnosed.

B. Mikulec added that, with this schedule, in the best case the passage from the 13 MVA to the rotating machine might take place the weekend before the AMS run. Since the electrical network reconfiguration plus the necessary tests would take 1-2 days, it is decided to conclude the run of AMS with the 13 MVA and only then change back to the repaired MPS.

R. Brown added that the magnet tests can take place only when the power will be available. In particular the ground loop tests will be done at lower current than usual. They will be repeated if necessary once the 26 GeV/c cycle will be available.

R. Brown added that the works in the tunnel are proceeding as foreseen. The construction of the shielding wall near the SMH16 should be finished by Tuesday or Wednesday. The bake-out of the SMH16 is continuing well, and the septum should be available for operation by Friday. J. Borburgh explained that the vacuum of the septum had to be broken to exchange the support of the fluorescent TV screen. The magnet itself was and is in perfect condition.

SPS (K. CORNELIS):

The shutdown is approaching its end. The remaining work in TI8 should be concluded by Wednesday (has to be coordinated with the LHC). The water leak found in BA3 should be repaired also by Wednesday. Due to the lack of cooling water, some of the RF equipment might have been damaged; this will be checked soon.

During the first cold check-out tests it was found that the power converters of the orbit correctors in BA2 and BA7 were damaged by over-voltage (the over-voltage protection was destroyed). It is not clear yet why this problem occurred, but investigations are ongoing in parallel to the repair work. There are in any case enough correctors to deliver the AMS beam on schedule. The remaining ones can be repaired without the need of an access in the ring.

North Area (L. GATIGNON):

The AMS installation is progressing.

TI (E. LIENARD):

Nothing to report.

3. Schedule / Supercycle / MD planning

The 2010 schedule (V1.3) is available at:

https://espace.cern.ch/be-dep/BEDepartmentalDocuments/BE/2010-injector-schedule_v1.3.pdf

The DSO tests for the H8 line will take place on the 2nd of February. Since the primary cooling water circuit will be available only on the 4th of February in the evening, the tests can only be done on basic element functionality and individual magnets, without pushing the magnet currents up to the 300 GeV/c energy. The line can therefore only be tested starting at the 4th in the evening, with the goal to provid the AMS beam as soon as possible and before the week-end.

The equipment groups have confirmed that the piquet and expert services will start the 1st of February.

A series of the CO interventions have been announced and are available on the web page https://espace.cern.ch/be-dep/FOM/Lists/Agenda/calendar.aspx.

The CNGS run, scheduled for the beginning of May, might be advanced by two weeks.

4. AOB

The Linac4 civil engineering works are progressing. As reported by G. Bellodi, there are some concerns about the radiation levels in the working site during the concrete work for the Linac4 tunnel roof construction. For 2010, outside the Linac4 roof work period, the radiation levels have been set at 6 and 12 microSv/h (warning and alarm threshold levels respectively); during the duration of the works to install the roof the alarm threshold has been lowered to 6 microSv/h.

The work should take place during the current week, but might be postponed to next week depending on the weather conditions. In any case, this should not have an impact on the operation since the AMS run requires only a low intensity and it is not possible to start the other beam setting up in the PS due to the limitations imposed by the powering with the 13 MVA transformer.

5. Next meeting

The next meeting will be held on Tuesday, 2nd February at 10:00 in 874-1-011.

Preliminary Agenda:

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

Minutes edited by S. Gilardoni