Minutes of the 9th FOM meeting held on 19.05.2009

Agenda:

1) Follow-up of the last meeting (K. Hanke)
2) Status of the machines (Supervisors)
3) Schedule (K. Hanke)
4) AOB
5) Special topic: Final list of activities during the technical stop (V. Chohan)

1. Follow-up of the last meeting

The follow-ups from the last meeting were:

a) status of the BWS in the injector complex: a dedicated BI review will be presented as special topic in one of the future FOM;

b) OASIS and CO related issues: a dedicated CO review will be presented as special topic in one of the future FOM;

c) BCT PSB calibration: work is still ongoing, but no feedback from BI at this FOM;

d) LHC beams required for the TI tests: M. Meddahi provided the list of beams required for the TI tests (naming of the beams from the PSB):

- LHCPROBE, one bunch, intensity of 5e9, emittance of about ~1um;
- LHC25A,12 bunches of 25ns spacing, intensity of about 5e9 to 1e10;
- LHC25A+B, 72 bunches of 25 ns spacing, intensity of about 5e10.

K. Hanke added that for the 25 ns, the request of the minimum intensity corresponds to about 1/20 of the nominal intensity. So far, only 1/10 of the nominal intensity has been produced within the longitudinal emittance specification, which is necessary for the bunch splittings in the PS.

After the meeting, it has been confirmed that 1/10 of the nominal intensity will be fine for the tests.

e) The technical stop of the 25th of May has been advanced to this week to take advantage of the stop of the complex due to the PSB septum break down. The activities related to the various machines will be discussed in the Special Topics.

2. Status of the machines

Linac2 (D. KUCHLER): The Linac2 had a good week. During Tuesday night, 43 m3 of deminarized water were lost in the LEIR water station, due to a broken relais. The return pressure went up to 5 bars and one of the safety valves in the Linac3 opened. On Wednesday, the Linac2 PLC software needed to be reloaded due to a software update of the Booster timings. This was done to advance the injection timings in the PS. K. Hanke added that the use of the MD3 user in the PS should be limited in time since it is needed for the impedance measurements in the SPS in the middle of June.

PSB (K. HANKE): The first part of the week was without any problem. The main activities were: BWS measurements and VELO measurements plus production of operational beams. On Friday morning, the injection septum had a water leak. The septum has to be changed by its spare. However, the injection region and the septum are very activated and this is the first time in 30 years that this intervention is necessary. There is hence a lack of know-how for the intervention. During the weekend, beams were provided to the users with reduced intensity to run the septum without water cooling (SFTPRO, AD, EAST, ISOLDE). Then, on Monday the required 24 hours cool-down started. Once the septum is changed, the pumping, and probably the bake-out of the extraction septum will start. All the operations will require a stop of about 3 days, depending on the results of the intervention and the bake-out of the other septum. Actually, it is not possible to provide a better schedule for the intervention yet.

During the week, the beam was sent twice to a wrong ISOLDE front-end. This was related to a wrong destination configured for the magnet BHZ301 due to a yet unclear reason. The destination HRS/GPS will be included in the interlock chain.

ISOLDE (P. FERNIER): ISOLDE had a good week. HRS has been running for the COLLAPS experiment producing Ga71. The physics run could be done also with the reduced intensity during the weekend. GPS was providing beam for the GLM and GHM lines. During the week, the He tank of the RFQ had to be refilled in advance. Then the PLC of the HRS stopped the heating of the target, which was luckily not damaged.

ISOLDE users: users were satisfied by the fact that, at least, even a reduced intensity could be delivered during the weekend.

PS (Y. PAPAPHILIPPOU): The 40 bp long supercycle could be run without any problem. By Tuesday, beam could be delivered to DIRAC. DIRAC seems to be satisfied, but they could not conclude all the tests to confirm the beam quality. On Tuesday, the 10 MHz cavity in SS51 started tripping. The piquet CO changed a pulse repeater, but the source of the problem was found on Wednesday morning during an access: a water leak on an amplifier.

The problem related to the beam steering at injection was due to a wrong polarity of one of the BTP dipoles, which has been corrected.

East Area (L. GATIGNON): The irradiation facility is running but is suffering from an alignment problem. This was planned to be solved during the technical stop (see discussion on the special topics). The DIRAC run was started. The T9 run started (T2K), with the lowest momentum ever realised (300 MeV/c). The chamber for the CLOUD experiment will arrive on Wednesday.

East Area Users (H. BREUKER): The T10 running has been extended. DIRAC is not taking data for the moment during the nights.

AD (T. ERIKSSON): AD started with two days of delay. The first reason was related to the upgrade of the horn pulser interlock and control. Then, some MTVs in TT2 were not working correctly for the setting up. The first tests were done with a reduced current in the horn, by which the pbar deceleration could be established. By Friday, and during the weekend, even with a reduced proton intensity, an intensity of 3e7 pbar could be reached. R. Steerenberg commented that this is very positive, since with reduced proton intensity and without optimisation, the pbar intensity is already comparable to the best which could be reached last year.

AD users (H. BREUKER): The users are already at CERN. Physics will start in three weeks.

nTOF: The target cooling is running. The connection of the interlocks is finished as the sealing of the air extraction of the ventilation system. RP has to give confirmation of the environmental control. The detectors are ready and aligned. The door in building 365, which connects the cooling area, the ventilation area and the target gallery, is still without interlock connection. M. Widorsky added that the monitoring station will be tested either on Wednesday or Monday next week. After the acceptance tests will be positive, nTOF will be ready for beam.

SPS (K. CORNELIS): Beam could be sent to NA also during the weekend. Long stops were done on Tuesday and Wednesday due to a current error on the main power converters at the end of the ramp, up to 40 A, as if not enough voltage was available. The problem was solved by changing a 5 V power converter feeding the equipment which programs the reference voltage. On Thursday, LHCFAST+LHCPROE could be set up until the extraction.

CNGS: Beam has been promised to OPERA for the 1st of June, However, as K. Cornelis mentioned, it was not possible so far to prepare the CNGS extraction, scheduled for the 20th, due to the PSB problem. So far 5e12 protons could be accelerated, but not extracted to the target yet.

SPS North Area (L. GATIGNON): The control of the analog wire chambers has been changed. Only the in-out motor movement has not been upgraded yet. COMPASS could not receive beam for about 1 h due to a blocked beam stopper.

NA62 should start taking beam on Monday in principle.

North area users (H. BREUKER): COMPASS is so far satisfied. Beam has been delivered to H4 and H6, where the setting up for a test beam for ATLAS is ongoing. On H2, the CMS users could do only little progress in their preparation and no data could be taken. H. Breuker will inform the CMS spokesman of the situation.

LINAC3: Linac3 is in shutdown; Linac3 matters will be followed up regularly during the run.

LEIR: LEIR is in shutdown; LEIR matters will be followed up regularly during the run.

CTF3: no news.

TI (E. LIENARD): The problem with the piquet tool has been solved.

3. Schedule / Supercycle / MD planning

The 2009 schedule (V3.4) is available at:

https://espace.cern.ch/be-dep/BEDepartmentalDocuments/BE/Schedule2009.pdf

The interventions programmed for the technical stop of the 25th have been advanced to this week. The stop is no more scheduled. The restart with beam will depend on the PSB septum intervention.

4. AOB

F. Tarita explained that a problem with one of the 466 kV transformer, which is currently off line, has been identified. A mayor intervention is needed and this will require about 2 months. A network modification will be required to absorb the extra load of the LHC cryogenics when the LHC will start, in such a way that the transformer can be repaired in the meanwhile.

This would cause a loss in electrical network operation flexibility, in particular the loss of the automatic transfer from the French to the Suisse network.

5. Special topic

V. Chohan presented the final list of activities foreseen during the technical stop. All the activities could be advanced to this week, with only two interventions which seems not possible to advance. The first one is related to the UA9-SPS experiment installations, which have been advanced but require the intervention of experts from Russia arriving only later this week. G. Vandoni will take care of the vacuum interventions during the long weekend. The second is the alignment of the irradiation facility in the EAST area. This cannot be advanced since the radiation cooling downtime is fixed. The intervention is still panned for Monday, with a stop only for the EAST area.

The detailed list of activities can be found here.

6. Next meeting

The next meeting will be held on Tuesday, May 26th at 10:00 in 874-1-011.

Preliminary Agenda:

1. Follow-up of the last meeting
2. Status of the machines
3. Schedule
4. Report on the PSB injection septum failure and repairing (J. Borburgh)

Minutes edited by S. Gilardoni