Minutes of the 10th FOM meeting held on 05.04.2011

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 9th FOM meeting were approved.

Follow-up from the last FOM:

Pending actions:

1) *See whether BLMs can be installed in TOF line (K. Hanke)*

First a suitable location for the BLMs needs to be found by beam optics simulations (follow up R.Steerenberg with ABP). Once this is known, K. Hanke will make a request for their installation at the IEFC. U. Raich asked how many BLMs are planned to be installed. It is not clear yet but R. Steerenberg expected ~5 BLMs should be installed. Action closed.

2) *Problem with PS tune measurement with POPS (PS supervisor/BI)*

POPS actions are put on hold until POPS restarts. Action not closed.

3) *Make the orbit measurement system work with the presently defined user files (PS supervisor/BI)*

A meeting with BI is scheduled for this week. Action not closed.

4) *Monitor the Bdot at the reference magnet with POPS M. Buzio/PS supervisor*

POPS actions are put on hold until POPS restarts. Action not closed.

5) *Status of the PS-Bfield fluctuation with POPS* (*PS supervisor)*

POPS actions are put on hold until POPS restarts. Action not closed.

2. Status of the machines

LINAC2 (G. Bellodi):

It was a quiet week for the LINAC2.

A high intensity MD was performed with the old RF tubes and the beam current could be raised to 177 mA (instead of 167 mA) at Booster injection. No sign of saturation could be seen. This MD will have to be repeated soon, since the tubes have been replaced by new ones during the technical stop.

Interventions during the technical stop occurred as planned. The only problem was with the temperature regulation of the DTL. A valve was not self regulating as it should have and the temperature decreased by 1 deg. A replacement valve was installed.

Beam was restarted without problem. The EPC piquet needed to replace a card and beam was back at 1 pm on Thursday.

PSB (B. Mikulec):

All interventions were finished as planned.

Setting up of machine was performed on Thursday afternoon and beam was back at 8:30pm.

CNGS was lost on ring 3 and it was found that the horizontal shaver was pulsing even though the timing was disabled. The EPC piquet solved the problem: the timing card was in local mode.

The BTP line transformers were not acquiring because the calibration was lost when the crate was switched off. The software was adapted to prevent such issue to happen again.

Two replaced wire scanners were tested to see if the measured emittance depends on the motor speed after calibration by BI on the bench. The problem is still present after the exchange with the recalibrated wire scanners. This means that this is not a problem of calibration. S. Gilardoni mentioned that it could be a motor problem. BI will follow this up.

All cavities C04 and C16 tripped a couple of times (one due to air flow). In both cases, a reset cured the problem.

A phase offset of C04 was perturbing CNGS. It was solved.

The AD beam was set up and archived. For the EASTA beam: nTOF parasitic beam setup was done on ring 2.

A first INCA MD on the Booster is scheduled for this Friday.

ISOLDE (D. Voulot)

The shutdown is finishing (cold check-out). Isolde expects to be on schedule.

PS (**R. Steerenberg**):

After the technical stop, the beams could be extracted on Thursday evening.

The beam for nTOF is still off, as it is waiting for RP authorization. All LHC beams were measured and documented. The AD beam was set up, accelerated and extracted. Further tuning remains to be done.

In particular, technical stop activities included checking the doublets for loose connections and installing the new wire scanner mechanics in the tank. Pumping was not going well but after a seal was replaced, the vacuum level recovered.

The orbit measurement still had issues and setting up of the electrostatic septum for the hybrid MTE beam had to be abandoned. As it is a recurring issue, BI will have to find a solution and a meeting is foreseen this week.

The specialist had to intervene twice on 10 MHZ cavities. The piquet CO and the RF power specialists also solved issues with the 40 MHz and 80 MHz cavities.

A simple reset worked on several trips of the fast bumpers for CT extraction to SPS.

K. Hanke asked about the situation with nTOF. RP measured a high dose rate and took beam again for dedicated measurements. They observed a radioactive gas leak out of the water station. Several vacuum leaks were identified. The source of the problem is now identified. H. Breuker said that TOF physicists were hoping for a restart on Wednesday afternoon if the polluted gas can be rerouted.

K. Hanke asked about the status of POPS: R. Steerenberg said that new capacitors for the passive filters have been ordered and should be built. A very optimistic expected time to restart POPS would be the technical stop in May and a more realistic would be for the one in June (still optimistic though).

P. Chiggiato expressed his regrets that the vacuum group was not informed of the installation of ferrites in the wire scanner vacuum tank. R. Steerenberg added that the ICE section of ABP had advised to put the ferrites only if necessary. He assumes the pressure rise was interpreted by BI as an impedance problem, whereas it seemed to just be the regular need to condition this new tank. The main problem is that no communication with vacuum, OP or ABP was initiated before installing the ferrites. Now the pressure is 10 times higher than what it should be. Gerard Tranquille said the ferrites were cleaned correctly. K. Cornelis said that pressure should go down by the

time ions are in the machines. R. Brown asked about the high frequency sound measurement done. R. Steerenberg said that the measurements were done with POPS but not yet with the MPS.

TOF

Already mentioned in the PS section.

AD (T. Eriksson)

AD was closed up and the equipment is now being tested. No major fault occurred, and AD should be ready for beam on Monday as scheduled. K. Hanke added that the AD beam is ready in the Booster and PS.

SPS (K. Cornelis):

All interventions went according to plan.

In particular, a very good job was done on the critical magnet and it is not leaking anymore without the need to replace the magnet, which would have meant venting the injection kickers.

After the technical stop, poor vacuum was measured in MKDH, which could not be quickly conditioned. Another leak occurred on a gauge on MKE4, which could be repaired, but also needed reconditioning. SPS OP realized also that one of the quads was 1.4 mm too low. Geometers had to go in the tunnel to realign it.

CNGS was operated at a reduced intensity as a burnt transformer of an RF amplifier was replaced. CNGS was also stopped due to a high voltage supply for the BLMs that was off.

QD and QS power supplies gave problems as well as a septum in 4 due to a corroded emergency stop.

SPS sent beams to LHC and LHCINDIV, LHC75 and LHC50 (2*12 bunches).

P. Chiggiato mentioned that the vacuum problem was not due to the scraper but to the kicker (most probably oxidized plates were not protected enough against exposure to air). He also said that the procedure to vent the dump was modified and worked very well this time. Procedure will also change to improve venting of the MKD kicker. K. Cornelis also said the vacuum sectorization should be rediscussed to minimize venting of the kickers.

CTF3 (D.Manglunki):

Some vacuum issues in the delay loop were fixed.

By chance it was detected that a PFN of MKS02 was smoking. The machine was stopped until the end of April for installation of smoke detectors to make sure such incidents are detected as early as possible. A memo on this incident was written by G. McMonagle.

CNGS (H. Breuker)

Both experiments (CNGS and North Area) are in good shape. He attended the official inauguration of ICARUS.

TI (P. Sollander):

The Diesel power backup will be in maintenance next week. No backup power will be available for North Area (if we lose the French and the Swiss main power networks).

LHC interface with injectors (M. Lamont):

The LHC recovered from the technical stop. The LHC took first 75ns and now 50 ns beams. Scrubbing will be done now for a few days. If things go really well, maybe scrubbing with 25 ns could be envisaged. The decision to run with 50ns or 75ns for physics will be taken next week.

3. Schedule / Supercycle / MD planning

ISOLDE: The Booster needs some time to set up the BTY line. There is a more detailed ISOLDE schedule.

M. Lamont said that the next technical stop and MD slots in Week 19 are planned to be from 8:00am to 8:00am the next day.

The 2011 schedule (V2.0) 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

5. AOB

P. Chiggiato said that the vacuum group will install 2 valves in transfer line TDC2 (TT20) next week to protect the splitter. Cables will be pulled at the beginning of next week and chamber was discovered under dropping HCl. Protection roof above it has a hole. This intervention is planned under the ALARA procedure.

6. Next meeting

The next meeting will be held on Tuesday, 12th April 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 S. Gilardoni and B. Salvant