

Minutes of the 37th FOM meeting held on 01.12.2009

Agenda:

- 1) Follow-up of the last meeting (K. Hanke)
- 2) Status of the machines (Supervisors)
- 3) Schedule (K. Hanke)
- 4) Update on PS access system video (F. Havart)/postponed
- 5) AOB
- 6) Next agenda

1. Follow-up of the last meeting

The minutes of the 36th FOM meeting were approved.

Open actions from last FOM:

- a) Follow up with RP specialists radiation alarms linked to PS extraction.
S. Gilardoni mentioned that the measurement campaign is progressing and data analysis ongoing.
- b) Check that the request of the LHC-mastership is executed during the right supercycle.
As mentioned in the last FOM minutes, the problem has been solved.

K. Hanke mentioned that a follow up was done with the fire brigade concerning the opening of the interlocked Booster door mentioned in last weeks minutes. The door cannot be painted yellow as proposed since this colour is reserved for the doors giving direct access to primary zones. A panel will be put on the door to indicate that the door is interlocked.

Another problem mentioned last week, concerning the steam accidentally sent on the electronics of the PSB recombination septa, was also followed up. K. Hanke had a meeting with the GS responsible for the intervention, who promised a better organisation of this kind of interventions for the future.

D. Chapuis mentioned that the access piquet service will be interrupted after the 18 December. A detailed planning with the expert availability to be contacted in case of problems during the Xmas break will be issued soon (see [available memo](#)).

2. Status of the machines

Linac2 (F. GERIGK):

The Linac had a good week without any particular problem. Following the vacuum intervention of last week, the RFQ is presently running with 3 out of 4 ion pumps, with the spare already out of action. The repair is planned for 18 December.

K. Hanke added that in the meanwhile a leak test has confirmed that there is no vacuum leak on the RFQ and source.

PSB (J. TAN):

The PSB has a good week. On Tuesday, the beam was stopped until 18:00 for the RP radiation survey. The restart was delayed by a problem with the power supply of BT.DVT30 which had some problems to re-start. On Thursday, the PSB had to stop for an access in the PS for a BWS intervention.

ISOLDE (E. SIESLING):

The separator course ended on Monday, after which ISOLDE was put in shutdown mode. The shutdown coordination will be done by the ISOLDE technical meeting.

ISOLDE users (A. HERLERT, mail):

“The off-line tests (calibration of HV power supplies) for laser spectroscopy were very good and users are very happy. They thank everybody involved in the tests for the help and support.”

PS (G. METRAL for Y. PAPAPHYLIPPOU):

On Tuesday at 12:00 all beams were stopped in the view of the radiation survey that took until 18:00.

A problem with the DIRAC security chain prevented beam from being sent to the CLOUD experiment. A temporary fix has been installed.

On Wednesday night the valve of the PS vacuum sector 60 closed, with an increase of the vacuum pressure up to 10^{-3} mbar in the SS54.

The vacuum and RP piquets were contacted to do a leak search. The SMH57 expert was also contacted to monitor the status of the slow extraction septum in the same vacuum sector. Access was given at 4:30 AM, and the vacuum piquet contacted E. Mahner to help in the vacuum leak detection. The leak could be identified on a wire scanner in SS54. The scanner could not be replaced since a spare mechanics is available but not calibrated. A blind flange was installed instead.

The beam could be re-established on Thursday afternoon, starting with LHCPROBE. About half an hour later the slow extraction septum could be powered again thanks to the good vacuum level, and the EAST area beam for CLOUD be produced again. The AD, the last production beam, could be delivered again at about 17:30.

On Friday, the pump of the cooling system serving the injection septum had to be replaced by its spare.

On Saturday, the distribution of the Btrain stopped working. The electronics of the system detecting the reference value of ~49 Gauss in the reference magnet was not working any more. The specialist had to intervene to fix the problem.

On Sunday, the LHCPROBE beam seemed to jump by one bucket at extraction. Since the observation of this problem is not possible from the CCC, the RF piquet was contacted. The first suspected source of the problem, i.e. that one of the multi-harmonic cavity was not following properly the programmed voltage, was ruled out.

An access has been programmed in the ring to fix a problem with one of the multi-harmonic cavity.

S. Hancock asked why the spare of the BWS was not available for installation. Unfortunately, no BI representative was present at the FOM to answer to this question.

R. Brown mentioned that during the machine stop for the RP survey the two stopped ventilation stations were inspected. The faulty fire detection system of one of them was repaired. The motor of the other one was found broken and will be repaired during the Xmas break.

East Area (L. GATIGNON):

CLOUD reports good progress.

East Area Users (H. BREUKER):

The CLOUD experiment is satisfied with the beam.

AD (T. ERIKSSON):

The AD had a rather good week.

The ASACUSA experiment was still installing some equipment. Finally, they were ready to take beam on Wednesday, when a small problem with the Q-trim4 perturbed the run. The mentioned stop of the PS due to the BWS problem caused a downtime of 16 hours.

On Monday, a series of unforeseen tests not foreseen on the fire detection system caused the trip of the electron cooler. During the tests, an interlocked door giving access to the HV cables powering the cooler were opened.

K. Hanke will follow this problem with GS.

AD users (H. BREUKER):

The ALPHA experiment was complaining about not forthcoming delivery of the usual amount of liquid helium.

ASACUSA restarted the data taking on Wednesday.

No news from the ATRAP experiment.

SPS (K. CORNELIS):

The SPS stopped on Tuesday afternoon as the other machines of the complex for the RP survey. At the same time, the TRX tubes were removed for the annual maintenance.

During the PS stop for the BWS problem, a few interventions were done also in the SPS.

Since Friday, the fixed target cycle has been restored for setting up of the AMS test beam. The PS delivered the beam using a fast extraction instead of the classical CT due to the maintenance of the extraction kickers. AMS will start to take beam on Thursday and Friday.

On Monday and Tuesday, satellite bunches were observed in the SPS for the LHC beams. The satellites are produced in the SPS. The RF expert is following up the problem.

On Tuesday, some interventions were done in the North Area as part of the normal maintenance, starting with a magnet patrol.

H. Vincke asked about the duration of the AMS run. K. Cornelis replied as long as possible. The only constraint is the maximum CERN power consumption, limited to 180 MW starting from the 1st December.

The intensity delivered on the North Area target is limited to about $200 \cdot 10^{12}$ protons.

SPS North Area (L. GATIGNON):

See the SPS report.

SPS North Area Users (H. BREUKER):

The users are happy.

LINAC3 (F. GERIGK):

The spare bellow has been installed and the source has been prepared for the 18 GHz tests. The tests foresee the operation of the entire Linac.

CTF3 (D. MANGLUNKI):

After the change of the exhausted klystron, the operation of the facility could resume to measure the dispersion in the TL2 line. The measurements showed good agreement with the model.

During the intervention on the klystron, the LAPP colleagues managed to fix the problem with the electronics of the BPMs. An improved shielding of the electronics was the final solution.

TI (E. LIENARD):

The TI had a very good week.

LHC interface with injectors (M. LAMONT):

M. Lamont presented the status of the LHC commissioning. Two pilot beams could be accelerated up to 1.18 TeV during the weekend.

Work then concentrated on obtaining stable beam at 450 GeV/c in order to do collisions during the next weekend. After this, the goal is to have collisions at 1.18 TeV.

The beam requested by the LHC is the LHCPILOT.

3. Schedule / Supercycle / MD planning

The 2009 schedule (V3.7) is available at:

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

The updated detailed schedule of the activities until the Xmas stop are available [here](#) and the list of the activities has been included in the intervention agenda accessible at <https://espace.cern.ch/be-dep/FOM/Lists/Agenda/calendar.aspx>. The schedule and the intervention agenda will be kept up to date as things evolve.

The MD in the PS foreseen after the stop of the SPS on 16 December is confirmed. The MD will start possibly at midnight and end at 6:00 AM on 17 December. Access in the PS will be granted

by RP after a cool-down of about 8 hours. RP will survey the radiation levels in the PS for a possible earlier go-ahead for the accesses.

M. Lamont mentioned that the LHC could stop even earlier than midnight, allowing the MD to start earlier.

The activities during the Xmas break will depend on the possible restart of the LHC the first weeks of January. The schedule of the LHC for the fix weeks of 2010 will be communicated this week.

After the meeting it was confirmed that the LHC will go into a technical stop right after the X-mas closure until at least 4 February. This would require a re-start of the injectors for the LHC on 25 January. However, there is a potential request from AMS to run for a certain number of days immediately after the X-mas break; this will be confirmed at short notice.

4. Update on PS access system video (F.Havart)

The presentation has been postponed to the next FOM.

D. Chapuis mentioned that the new video system will be available in the CCC starting from next week for the first tests.

5. AOB

6. Next meeting

The next meeting will be held on Tuesday, 8 December at 10:00 in 874-1-011.

Preliminary Agenda:

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Minutes edited by S. Gilardoni