# Minutes of the 43rd FOM meeting held on 22.11.2011

Agenda:

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

## 1 Follow-up of the last meeting

The minutes of the 42nd FOM meeting were approved.

Follow-up from the last FOM:

***Pending actions:***

*Status of the PS-Bfield fluctuation with POPS*

Action not closed (will most likely be carried over to next year).

## 2 Status of the machines

**Linac2 (R. Scrivens):**

It was a very smooth week until Sunday, when a stop of the demineralized water occurred. To finish the run, it was decided to switch to the spare pump. This pump is also supplying Linac3 and LEIR and it has no pressure regulator system. Since it may also affect Linac3 which is very sensitive to pressure variations, it was decided to leave the Linac2 RF tube filaments running until Friday. J. Nielsen said that TI will help to monitor the pressure, and said that it was not the cooling tower that caused the problem but a pump. LEIR was also made aware of the situation.

**PSB (G. Rumolo):**

It was a smooth week.

The PSB gave beam to ISOLDE and lots of MDs and radiation measurements took place. Beam was stopped yesterday at 08:00 and RP survey is planned today at 14:00. Tomorrow magnets will be pulsing and then switched off for the winter stop.

**ISOLDE (E. Piselli):**

It was a good week with only one problem of vacuum valves on Sunday morning.

## ISOLDE users (M. Kowalska):

M. Kowalska said that beam was even too intense. She added that it had been a very good year and extended her thanks to everyone.

## PS (J. Wozniak):

It was not a successful week.

On Wednesday, a vacuum problem was detected on injection septum SMH42 when it was pulsing.

Due to high radiation, access was granted by RP only from 15:30. TE/ABT performed tests were but without success. The problems seem to be related to sparking. It was decided on Thursday morning to stop all protons in order to avoid risks to compromise the end of the ion run. The ion beam was recovered at 20:15.

M. Hourican said that it may not be a vacuum leak, but a short circuit or a failing ceramic feed-through. This will be investigated at the end of the run as the radiation dose was 4 microSv/h. M. Hourican extended his thanks to vacuum, power and RP colleagues for taking part in the intervention.

As a consequence of the proton stop, the RP survey took place on Thursday afternoon.

## East Area (L. Gatignon):

Not much to say.

## East Area Users (H. Breuker):

Not much to say.

## TOF (H. Breuker):

Not much to say.

## AD (T. Eriksson for C. Oliveira):

AD was behaving well until the proton stop.

The shutdown work has started.

The magnet patrol was done and power converter tests are ongoing. The AD will remain closed until next week.

## AD Users (H. Breuker):

There was some disappointment from ALPHA and ASACUSA.

## SPS (Y. Papaphilippou):

Not much to say.

Large series of measurements on Q20 and Q26 were performed and the 100ns beam was prepared.

## CNGS (H. Breuker):

A preprint was submitted to JHEP after the tests with the LHC-type bunches with 500 ns spacing. 20 clean interactions seem to confirm the measurement done with the nominal beam.

## CTF3 (T. Persson):

T. Persson sent an email before the meeting:

“
Monday: Most of the day was spent on commissioning the delay-loop for the factor 8 recombination. We had some problems with MKS05 but this problem was solved during the day.
Tuesday: Most of the day was lost due to a problem with MKS05. The thyratron needed to be replaced.
Wednesday: Started to set up the 1.5GHz beam but we were stopped due to problem with waveforms that were not sent. This problem was solved by later by changing a gorger card.
Thursday: Continued with the delay-loop and performed test with the two beam acceleration.
Friday: Continued the preparation for the factor 8 recombination.

General problems:
Problems to change the phases of the klystrons have occurred. It takes more than 30 second compared to the normal of 2-3 seconds. The problem has been investigated but is still not identified. This problem has been seen in the past but at that time it disappeared after only 1 day without every being understood. Now it has been there for 1 week. This make us lose a lot of time since these are parameters we have to change frequently. The problem is general for all the klystrons and also for CALIFES.
“

T. Persson confirmed this latter problem was solved on Tuesday by a modification on the FESA class in order not to overload the PLC.

## TI (J. Nielsen):

There was a problem with a DNS server blocked by a hacker at 5:00 a.m. on November 16th.

## LHC interface with injectors (M. Lamont):

No protons.

# IONS

## LINAC3 (R. Scrivens):

On Thursday afternoon there was a problem with the RF tuning of tank 1.

On Sunday, Linac3 was affected by the water stop but the restart was smooth.

An InCa issue was found: some knobs were found without control switches (no on/off) and therefore the power convertors and RF had to be reset manually. This has now been corrected.

**LEIR (D. Manglunki)**

It was a very good week until the water problem on Sunday.

All equipment could be restarted from the CCC except the electron cooler, which needed to be restarted locally.

Yesterday, it was tried to improve the intensity out of LEIR by using higher intensity from Linac3, but it turned out to be difficult to extract more than 4E10 charges per cycle out of LEIR.

**PS (J. Wozniak)**

On Wednesday night there was a bump power problem (1h20 downtime).

On Friday, all 80 MHz cavities were retuned for ions.

On Monday, a steering for extraction from LEIR was performed to try and reach better intensities.

**SPS (Y. Papaphilippou)**

Smooth operation.

Ion beam was back in the evening but the efficiency was not too good.

After optimization in all machines, it was managed to deliver 2.3-2.4E11 ions per shot with 0.9 mm.mrad emittances.

On Monday, the SPS switched to lower energy. Since now primary beams are delivered to the North Area, there were issues with permissions as it had not been done for a while.

To try to avoid tripping the power supply, all sequences have now been set to the same offset, and it took a long time to obtain this. R. Steerenberg said that now this offset is wrong.

**North Area (L. Gatignon):**

On Thursday the North Area switched to primary beam, but it was fixed only yesterday.

**North Area users (H. Breuker):**

NA61 is running very well, and switched to lower energy. They will still want to use 80 GeV and 40 GeV. UA9 is running with fragmented beam (Beryllium). Since it is the same people also doing the SPS UA9 MD NA61 will stop until Saturday.

**LHC (M. Lamont)**

M. Lamont presented slides on the ion run for last week. LHC went to the maximum number of bunches (358-358) and said that users were very happy. Luminosity could be increased thanks to the number of bunches a the smaller beta*, and an intensity per bunch twice larger than the design.

## 3 Schedule / Supercycle / MD planning

The 2011 schedule (V3.7) 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

G. Rumolo said that the MD stops on Friday at 08:00 a.m.

The source will be stopped on Friday at 08:00 a.m., after filling the LHC.

There will be 2 more FOMs in 2011.

## 4 AOB

## 5 Next meeting

The next meeting will be held on Tuesday, 29th November 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 B. Salvant