



Summary of the 42nd FOM Meeting

Held on Tuesday 11th December 2018

Agenda <https://indico.cern.ch/event/779798/>

- 1. Follow-up of the last FOM*
- 2. Status of the machines*
- 3. End-of-run presentation*
- 4. AOB*

1. Follow-up of the last FOM

B. Mikulec chaired the meeting.

The list of presence can be found in [Annex 0](#).

The [minutes of the 41st FOM](#) were approved.

2. Status of the machines.

Linac3

D. K uchler reported for **R. Scrivens** the status of the linacs ([Annex 1](#)).

Following the power cut on Monday evening, the beam was back to LEIR 4 hours after the green light was given on Tuesday morning. On Friday, one of the source power converters tripped twice and could not easily be restarted. It required adjustment of the filter parameters. Each trip required an hour-long reconditioning of the source. On Saturday a source performance change started around 12.00, and it took until around 21:00 to get back to a stable situation.

Linac4

B. Mikulec reported the status of Linac4 ([Annex 2](#)).

The planned program could be completed and the required data to prepare for the LBE line run next year were taken. Last week was marked by the thunderstorm on Monday evening bringing down a lot of equipment. Beam was only back on Tuesday around 17.30, which is understandable also because there is no piquet coverage during nights and due to the lower priority for the restart compared to the other machines. An access was required in addition due to flowmeter problems with DTL3 and PIMS11/12. During the restart, there were different problems related to FGCs that were analysed by EPC. The summary of the weekly availability during the reliability run was given with an average of 94.8% over 10 weeks.



LEIR

A. Saa Hernandez presented the status of LEIR ([Annex 3](#)).

It was a pretty good week for LEIR with 88% availability. Beam was extracted towards the fixed target experiments quasi-continuously from Tuesday noon on, once recovered from the Monday evening power cut. After the glitch a tune ripple of 50 Hz and ~ 1 Gauss peak-to-peak amplitude was measured on the main bends. The tune ripple was present independently from the B-train used (WhiteRabbit or the previous system) and the piquet was called to perform further investigations. The tune ripple was still observed for a DC-field on the main bends, and also after a change of the regulator card. It "spontaneously" cured on Tuesday evening and despite the efforts to track down its source it could not be explained. On the MD side, the tests with the turn-by-turn BPM system continued and the tune could be reconstructed during ramping and at flat top with clean measurements. Investigation took place to understand if the position of the electron beam in the electron cooler could also be measured with the use of the ion BPMs. Quite some time was devoted to get reference measurements of pretty much everything and on all cycles for a smooth recovery after LS2.

PS

D. Cotte reported the status of the PS ([Annex 4](#)).

Following the power cut, the PS was restarted on Tuesday morning after the patrol of the TT2 Sector_1. There were only few short beam interruptions during the rest of the week. A new RF card prototype generating the master clock (256) was tested. A new simulated Btrain transmission via WhiteRabbit was tested yesterday.

F-X. Nuiry commented that, although the system will be replaced during LS2, STI will investigate the issue observed with the internal dump during the restart on Tuesday morning.

M. Gourber asked whether the Btrain test went well. **H. Damerou** answered that there was still some work left on the software side, but that the test was pretty successful.

East Area

B. Rae said there was nothing to report.

East Area Users

H. Wilkens said the experiments were stopped last week. Users are now eager to test post-LS2 beams.

SPS

F. Velotti reported the status of the SPS ([Annex 5](#)).

It was a pretty good week with 85% availability and NA users taking 36.8 ZGeV/c lead beam. The Monday evening event caused around 16h of no beam for the SPS. The recovery was slowed down by the power limitation imposed and the green light to restart was given on Tuesday morning. After the restart of Linac3, LEIR and of the PS, beam could be sent to the NA around 13.00 on Tuesday. This issue also caused the need for 2 accesses for the crab cavities (on Tuesday and Wednesday). The SPS



and its injectors worked pretty stably until Saturday when the Linac3 source became unstable and needed the expert to work on it for almost the whole day.

North Area

B. Rae said it was a very good week. Following the power cut, the beam was back to NA61 on Tuesday evening.

North Area Users

H. Wilkens said that 2 NA61 vertex magnets tripped during the power cut. They were back on Wednesday and Thursday evening. Users were pretty happy in the end. A Russian satellite experiment took place successfully in H8.

AWAKE

E. Gschwendtner said they had laser tests last week and electron beam experiments are scheduled for this week. Unfortunately, this coming week program is perturbed by SPS magnet tests.

V. Kain commented that the priority will be given to magnet tests. Scheduling will be discussed offline between SPS and AWAKE teams.

CLEAR

A. Curcio reported the status of CLEAR ([Annex 6](#)).

A resistor was replaced on the modulator of the RF-deflector's klystron. A new BPM design based on incoherent Cherenkov diffraction radiation in the visible/NIR region was tested. CLEAR also suffered from the Monday evening event. An irradiation experiment with users from the CHU of Lausanne will take place this week. The machine will be stopped next week until mid-February.

TI

C. Pruneaux said there was nothing to report apart from the power cut on Monday evening.

3. End-of-run presentation.

R. Steerenberg presented a summary of the 2018 injectors' run ([Annex 7](#)).

He thanked all the people and teams involved in the FOM and emphasised the importance of the FOM and input from all the participants for the operational performance of the accelerator facilities. Summary of machine availability over the present and previous years was given. Selected highlights were then given through the whole injector complex.



4. AOB.

- **A. Bland** said that the password will be changed on Tuesday 22nd January.
- **C. Pruneaux** said that the TIOC will continue during LS2 and that issues on operational machines can be transferred to the TIOC via **B. Mikulec** or the TIOC representatives of the running machines.
- **R. Steerenberg** added that a schedule will be drawn up for the operational machines and distributed.

Next Meeting: Probably in 2020.

Minutes reported by [JB. Lallement](#) on 13th December.