

# Beam Commissioning Working Group

Minutes for 9 November 2018

**Present:** V. Kain, G. Rumolo, S. Albright, H. Bartosik, J. F. Comblin, M. Gourber-Pace, D. Jacquet, K. Li, B. Mikulec, G. Papotti, F. Tecker, F. Velotti

## Meeting objectives

Review of the reference measurements status and plans for LEIR, with an AOB on plans for the settings management working group.

## Approval of Minutes and Matters Arising - V. Kain

The minutes of the 2<sup>nd</sup> of November are not yet available, so will be reviewed in the next meeting.

## LEIR Reference Measurements - N. Biancacci

### *Presentation*

- Main measurement campaign has not yet started but detailed plans are documented on the OP/LEIR website in a Google document spreadsheet and a subset exists as documentation of commissioning and optimisation.
- Commissioning and optimisation steps are used to guide the reference measurements to give a step-by-step description of commissioning and what performance should be attainable at each stage.
- The Google document includes details on where data will be saved as well as links to tools that can be used to acquire some of the data.
- Each stage of the acceleration process (injection, accumulation, ...) has a list of relevant measurements and the devices associated with them along with where the data will be stored and who is responsible.
- Measurements will be taken while LEIR is achieving LIU performance.
- As the measurements are worked through they will be used to update the commissioning check-list where appropriate.

### *Discussion*

- S. Albright asks if “B-field” is used synonymously with “B-Train” in the accumulation measurements, N. Biancacci says yes.
- V. Kain thinks that the reference measurement tool should include a list of what measurements are to be done and a way of identifying the complete ones, which would be beneficial for each machine.

- V. Kain thinks that for all machines, but especially LEIR, the stability of the machine over a longer time span (e.g. a week) should also be taken to record how much variation can be expected.
- G. Rumolo thinks some recording of what is required for changes of species would also be beneficial. V. Kain and N. Biancacci agree.

## AOB Settings Management Working Group - D. Jacquet

### *Presentation*

- A lot of new features have been added to the controls of the PSB and PS to improve how certain parameters are controlled, such as PSB  $\rightarrow$  PS first turn in YASP.
- A detailed list of “settings management backlog” is available, future discussion with management will be required to prioritise it.
- Many new tools, and improvements and simplifications of existing tools are planned during LS2.
- Current backlog equates to approximately 7 man-years of work.

### *Discussion*

- H. Bartosik questions what is meant by naming conventions, D. Jacquet explains that it is not for hardware but for things like software logical devices.
- M. Gourber-Pace asks about the collaboration with CO and when the priorities will be discussed. D. Jacquet says the plan is to organise a meeting with R. Steerenberg and the OP group at the end of the year. M. Grouber-Pace says the plans for CO are not yet decided and in the context of things like LSA changes there will be a significant impact from the OP plans.
- V. Kain asks about the 5 man-years of software changes and if this refers to specific people. D. Jacquet says this is a general requirement of the equivalent of 5 people for 1 year, as a mixture of OP and CO people and that this is why the collaboration with CO is important.
- V. Kain asks about the distinction between software and non-software changes. D. Jacquet says that e.g. writing LSA makerules is classed as software, whereas something like the naming convention is considered configuration and therefore a non-software change.
- V. Kain says that if there is a miscalculation in the required time it will be important to decide where priorities should lie in terms of LIU, ISOLDE, AD etc, but if the calculation is correct (which is expected) the amount of manpower required is not expected to be a problem for the resources available in OP.
- V. Kain mentions additional requirements coming from the beam commissioning working group which are not part of the settings management working group prioritised lists: e.g. consistency checks are a general problem across the complex. One example is the use of Varilog in the PS, where the functionality is still useful even if the tool is not being supported anymore. V. Kain mentions that super-settings are still worth consideration, D. Jacquet says that it is a very large amount of work for only small benefit. V. Kain asks how it was decided

that there is a small benefit, D. Jacquet says this came from the operators. V. Kain thinks it is worth considering benefits not seen by the operators yet and this may be useful for all machines.

- V. Kain asks about the possibility of making a major change in the cycle definition approach. D. Jacquet says it is something that could be done, but would probably need planning during LS2 and implementing during LS3.
- V. Kain suggests trying to use LS2 as an opportunity to investigate making major changes in how the complex operates, without risking operation, so that serious functionality improvements could be made in the future.

The next meeting will be the 9th of November on the commissioning schedule for the SPS (beam and hardware).