



Minutes, CLEAR Politburo

31st January 2022

Members: E. Adli, R. Corsini (President), S. Curt, S. Doebert, D. Gamba, W. Farabolini, L.A. Dyks (Secretary), A. Malyzhenkov, G. Mcmonagle, K. N. Sjobaek, P. Korysko, J.J. Bateman, C. Robertson

Absent: E. Adli, S. Curt

Agenda

1. Status of the Winter Shutdown

1 Machine status and planning

The meeting began with Pierre running through the updated list of shutdown actions sent to the group by Wilfrid. The full details of each action can be found on the Indico page.

- There was a leak found in a valve between the new section of beam pipe and a section that was at atmospheric pressure, which was resolved. The kapton window at the end of the beamline was replaced, as was the aluminium one on the spectrometer. Both windows appeared fine, although there is clearly a manageable leakage through the kapton window. It may be worthwhile to investigate the extent to which the kapton window is damaged through operation in future, but this is not a priority.
- The vacuum has recovered in the section where the CLIC structure was installed. However, the chamber will need to be replaced with a smaller one, and the vacuum broken, to allow the in-vacuum Cherenkov BPM experiment to be installed. The CLIC BPMs will also be installed in the space in the end.
- The electronics for the CLIC cavity BPMs will be tested outside CLEAR to ensure they work before future installation.
- The gaskets used to connect stainless steel beam pipes to aluminium beam pipes have run low. New gaskets will need to be procured. Wilfrid will follow up with Nicola to obtain the drawings and see if more can be manufactured. Kyrre noted that the EOS team may have also made some of these gaskets.

- The earliest that the Cherenkov BPM experiment can be installed is in May. There is enough space to install their setup, but installation may need an iBPM to be rotated.
- No news on the Russian X-ray experiment or the digital camera control system.
- Sara has confirmed that she will visit CLEAR this week to decide how she wishes to install her fibre.
- A discussion was held with with Eric about renewing the photocathode. He should be available following the 3rd week of February. They will require the RF supply, which we do not know the restart date of yet.
- The work on the laser is ongoing, but should be ready for the beam restart.
- The z-axis of the grabber needs to be re-cabled, Alan will help us with this this week.
- The replacement parts for the 3D printer have been shipped and should arrive this week.
- The equipment for a replica robot still needs to be installed.
- a longer cable was installed by Jose to move the plasma lens turbo pump control system away from the high radiation area. It must be noted that this is an intermediate solution and it may be necessary to move the system further still.
- The control room chairs still have not been delivered. The cleaning was done last week. The new switch to decide which screen is controlled by the mouse or keyboard will be installed this week.
- Davide has suggested that we should not include the request forms on a public forum as they may contain sensitive information.
- Wilfrid has contacted Roger Jones to inform him that a kapton foil could be a better entrance which will be followed up this week.
- A test run of the approval procedure will be undertaken this week with an old request.
- An email will be sent to the user list to remind them that any continuation of work will need a new beam time request form.
- Work should be done for the permits and permissions necessary for the beam restart.
- Steffen has investigated with Anthony about the solenoid spare parts, their progress is small, but they will continue to work on it this year.
- The FOM meetings have restarted,

Actions

- **Wilfrid:** Provide an update on the installation of the temporary quadrupole.
- **Pierre + Wilfrid:** Install the new, smaller section of beam pipe.
- **Wilfrid:** Provide a solution to procuring new vacuum gaskets.
- **Pierre:** Investigate the damage to the 3D printer and find a solution.
- **Pierre:** Install the optical fibres for the BLM experiment.
- **All:** Complete the calibration of the inductive BPMs.
- **Wilfrid + Pierre:** Prepare for the refurbishment of the photocathode with Eric Chevallay.
- **Pierre:** Continue work on the improvements to the robot. **All:** Provide updates to potential experiments and circulate any new requests.

Long-Term Actions

- **Wilfrid:** Work with the vacuum group to consolidate the vacuum systems.
- **Davide, Kyrre + Wilfrid:** Decide the way forward to deal with the phasing out of the Oasis cards currently used on CLEAR.
- **All:** Investigate ways of logging beamtime data.
- **All:** Investigate ways of collecting operational statistics in a more systematic way.
- **Wilfrid:** Follow up with the drawing department and gain an idea of the costs of necessary improvements to the beamline diagrams.
- **Roberto:** investigate the collaboration request from INFN.
- **Roberto:** Meet with Edu to discuss future work needed for the laser and to discuss the feasibility of higher than 10 Hz operation.

It was decided that there should be a politburo meeting every Monday, at 9 am until the beginning of operation. An Indico page will be set up to store the minutes and other Politburo documents.

Next Meeting: Monday 31st January 2022