

# Meeting of the restricted Machine Protection Panel

September 5<sup>th</sup>, 2023, via Zoom

## *Participants:*

*C. Bracco (SY-ABT), A. Butterworth (SY-RF), Y. Dutheil (SY-ABT), C. Hernalsteens (TE-MPE), F. Moortgat (EP-CMG), B. Salvachua Ferrando (SY-BI), M. Solfaroli Camillocci (BE-OP), J. Uythoven (TE-MPE), F. Van Der Veken (BE-ABP), J. Wenninger (BE-OP), C. Wiesner (TE-MPE), D. Wollmann (TE-MPE), C. Zamantzas (SY-BI).*

The slides of all presentations can be found on [Indico](#).

## Readiness for Stable Beams

### Collimation (F. Van Der Veken)

The aperture measurements performed on the low-beta proton cycle showed that the aperture is similar to what it was during the commissioning after the YETS. The loss maps matrix has been completed for the Van der Meer cycle. All loss maps are nominal. One loss map showed a spurious BLM signal in 11R5. The loss maps for the p-p reference cycle are still pending. No loss map are foreseen for the very high-beta cycle.

**Action:** Follow-up on the spurious BLM signal (Frederik, Belen).

### Injection protection (Y. Dutheil)

The injection protection in Point 8 has been successfully revalidated on August 31.

Pending simulation results of the TDI failure cases in the present TDI position, the limitations are as follow:

- Injection limit: up to 4 individual bunches per injection
- Circulating beam limit: up to 72 bunches

These limitations are compatible with the Van der Meer run.

### LBDS (Y. Dutheil)

An issue occurred with the TCDQ, which moved at flat top. The BETS went into false as expected. The beams were not dumped, as the BETS was masked. Experts have checked this event and consider it ok. An issue is being investigated regarding BLM signals used by the XPOC for the MKB beam 2. Christos commented that the faulty module will be exchanged tomorrow (06.09.).

### BLM (C. Zamantzas)

The Beam Loss Monitoring system is ready for stable beams.

Some BLM racks have cooling issues potentially causing optical links failures. This is not a blocking issue, as it mainly affects availability. It is being investigated and well mitigated by the update in the BLM firmware during TS1. The BLM triggering check in Point 8 was performed successfully.

## ALFA/AFP

The RPs are aligned and validated.

## TOTEM/CT-PPS (M. Deile)

These RPs will not participate in the Van der Meer run. Tight position limits around garage position will be applied.

## Other systems

Jorg commented that all systems are ready from the OP point of view. Some PC interlock limits will require adjustment for the p-p reference run and this is planned.

Jan confirmed that the interlock systems are in good shape. The only issue during hardware commissioning was the replacement of a PIC module, which had never failed anywhere before.

Andy confirmed that the RF system is fully ready.