PPS of Muon experiment area

Y. Kobayashi[1,2#], N. Kawamura[1,2], A. Koda[1,2], T. Yamazaki[1,2], Y. Ikedo[1,2], and K. Shimomura[1,2]

[1]*J-PARC Center, Tokai, Ibaraki 319-1195, Japan*
[2] *KEK, Tsukuba, Ibaraki 305-0801, Japan*

 # a corresponding author: E-mail yasuo.kobayashi@kek.jp

Japan Proton Accelerator Research Complex (J-PARC) includes the Materials and Life Science Experimental Facility (MLF), which uses a 3GeV proton beam. The proton beam is accelerated in the linac and the 3GeV-RCS and delivered to the MLF through the 3GeV proton beam transport line (3NBT). In MLF, the proton beam is irradiated to graphite targets for muon production and mercury targets for neutron generation. The secondary particles are transported to each experimental areas and used for each experiments.

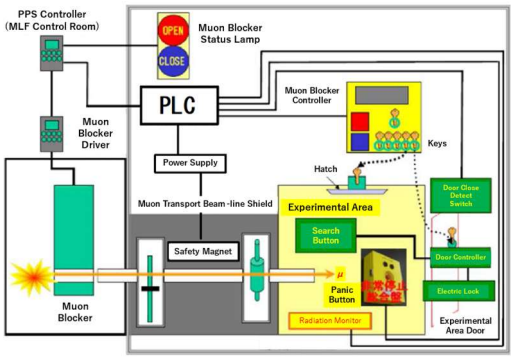

Fig. 1 Muon beamline PPS interlock

The Muon Science Experimental Facility (MUSE) has four beamlines and eight experimental areas in the MLF, and various experiments have been performed.

In order to conduct experiments safely in these experimental areas, the Personal Protection System (PPS) must be properly operated to ensure the safety of workers and outside users from radiation generated by the beamlines and experimental apparatuses [1].

In this section, we reports the PPS of the experimental area MUSE has installed at the MLF.

References

[1] Progress of General Control System for Materials and Life Science Experimental Facility at J-PARC, K. Sakai, M. Ooi, T. Kai, K, Nakatani, Y. Kobayashi, and S. Watanabe, JAEA-Technology, 2018-011. **36**, (2018).