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ESS accelerator personnel safety system journey towards steady state operation

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The European Spallation Source (ESS) Accelerator Personnel Safety System (ACC PSS) journey towards steady state operation has been a remarkable experience. ACC PSS serves the safety interlock and access control functionalities for the Linac.

The safety interlock mitigates various hazards (ionising radiation, high voltage) associated with the proton beam operation and RF equipment. The access control is achieved by implementing an integrated access management, where a Personal Access Station (PAS) is merged with a Physical Access Control System (PACS), allowing fully automated passage.

Thorough verification and validation have been performed to attain seamless operation. This paper provides lessons learned and investigations throughout the ESS ACC PSS commissioning journey.

Footnotes

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