

Integrated approach for ESS personnel safety systems

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The European Spallation Source (ESS) is a state-of-the-art research facility currently under construction in Lund, Sweden. Upon project delivery, ESS will host the most powerful linear proton accelerator and a spallation target capable of producing the brightest neutron source in the world. In order to enable safe commissioning and operation of these potent systems, each system has a dedicated personnel safety system (PSS). Together they make up the ESS PSS, an integrated system of several PSS across the facility. These systems communicate with each other through a centralised interlink system, and together determine if the facility is ready for proton beam generation in the Accelerator and consequently neutron production at the Target Station. This paper provides a summary of the inner workings, along with a discussion on the approach and proposed strategies for overcoming the identified challenges.

Footnotes

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Primary author: LASTOW, Jessica (European Spallation Source ERIC)

Co-authors: FARSHIDFAR, Afshin (European Spallation Source ERIC); ABUJAME, Ahmed (European Spallation Source ERIC); NORDT, Annika (European Spallation Source ERIC); ANDERSSON, Anton (European Spallation Source ERIC); PETRUSHENKO, Artem (European Spallation Source ERIC); WEBBER, Charles (European Spallation Source ERIC); PLOTNIKOV, Dmitrii (European Spallation Source ERIC); DARYADEL, Donya (European Spallation Source ERIC); GUSTAFSSON, Johannes (European Spallation Source ERIC); GRÖNVALL, Julia (European Spallation Source ERIC); NUNES, Luiz (European Spallation Source ERIC); ZMUDA, Marcin (European Spallation Source ERIC); CARROLL, Martin (European Spallation Source ERIC); ERIKSSON, Mattias (European Spallation Source ERIC); MANSOURI, Morteza (European Spallation Source ERIC); NAICKER, Nerusha (European Spallation Source ERIC); HOLGERSSON, Peter (European Spallation Source ERIC); FOROOZAN, Reza (European Spallation Source ERIC); HARAHAHAP, Vincent (European Spallation Source ERIC); TAKZARE, Yaser (European Spallation Source ERIC)

Presenter: LASTOW, Jessica (European Spallation Source ERIC)

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