

ARW 2024

Accelerator Reliability Workshop

MAX IV and ESS are Excited and Pleased to Announce their Joint Hosting

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Minimizing Fault Troubleshooting Time by Linking Equipment Protection Faults to Part Replacement*

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The Spallation Neutron Source (SNS) is the highest power pulsed accelerator driven neutron source in the world delivering 1.7 MW of beam power with a capability up to 2.8 MW. One of the metrics monitored daily is beam availability. For a neutron source high beam reliability is extremely difficult due to the accelerator high beam power and tight interlock requirements required to minimize machine damage from the beam. With the understanding there will be a high number of beam trips the focus is on reducing the time it takes to recover from faults. Fault causes along with solutions are documented in many places (electronic logbook, automated fault recording, manual downtime recording, Enterprise Asset Management (EAM) system), but knowing when and where to look for previous examples can be difficult. The process for linking equipment problem codes to downtime for specific part replacement for creating immediate statistical reporting will be discussed.

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