DENIM 2025 - Design and Engineering of Neutron Instruments Meeting



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Return to Operations at the NIST Center for Neutron Research

The NIST Center for Neutron Research (NCNR) has not conducted scientific operations since January 2021 due to a damaged reactor fuel element. Following an extensive cleanup effort, the reactor can be operated safely, and well within regulatory requirements. However, routine operations were inhibited by a small quantity of damaged element debris (~1-3 g) still present in the reactor vessel after the initial cleanup.

In 2024 the NCNR kicked off a new project to disassemble the vessel for further cleaning ahead of a return to scientific operations. In parallel with this reactor recovery project, the facility has upgraded the three oldest neutron guidelines and the associated guide support systems. This upgrade will improve data rates by a factor of 2-10 for the nine instruments served by these guidelines.

This presentation will provide an update on the reactor recovery and guideline upgrade projects and will discuss the plans for a return to scientific operations at the NCNR.

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