

Progress of the Proton Power Upgrade Low-Level RF Development at the Spallation Neutron Source

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The Proton Power Upgrade Project (PPU) for the Spallation Neutron Source (SNS) at Oak Ridge National Laboratory is nearing completion. This project will double the proton beam power capability from 1.4 MW to 2.8 MW with 2 MW beam power available to the first target station and an additional 800 kW available for the future second target station. As of July 2023, seventeen of the new μ TCA.4 low-level RF (LLRF) systems have been installed and are currently supporting 1.7 MW beam operation. As with any new development, some issues have been discovered and changes implemented. This talk presents highlights of the installation, a few of the solutions developed to correct issues, recent operational experience, and plans for the completion of the LLRF portion of the PPU project

Keyword

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