NEUP Nuclear Energy University Programs
U.S. Department of Energy

Project Title

Instrumentation for Enhanced Safety, Utilization, and Operations Infrastructure at The NCSU PULSTAR Reactor

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Program: University Research Reactor Upgrades

Collaborators: N/A

ABSTRACT:

The objective of this project is to upgrade and enhance the safety, operations, and utilization infrastructure at the PULSTAR reactor of North Carolina State University (NCSU). This upgrade will include: (1) installation of modern reactor console instrumentation to support the continued safe and reliable operation of the PULSTAR reactor, and (2) installation of comprehensive and facility wide radiation protection and moisture/temperature sensor systems (**see section G**). The enhanced instrumentation will also be synergistic with the operation of the PULSTAR at the upgraded power of 2-MW (anticipated during 2021), and will generally support the implementation of new capabilities at the PULSTAR (e.g., the advanced reactor experimental program) that are consistent with its mission and the mission of DOE NE. The proposed instrumentation and monitoring upgrades are expected to have direct impact on the PULSTAR reactor by enhancing its operational experience and to facilitate its safe utilization by various user groups including academic faculty, staff and students, and engineers and researchers nationally and internationally.