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NRC Awards FY 2021 Research and Development Grants

The Nuclear Regulatory Commission announced that it has [awarded](#) nearly \$6 million in grants to support research and development activities for nuclear science, engineering, technology, and related disciplines. The remainder of the fiscal year 2021 funds authorized by Congress under the University Nuclear Leadership Program, approximately \$10 million, are allotted for scholarships, fellowships, trade schools/community colleges and faculty development, and will be distributed by the end of May 2022.

The intent of the grants is to develop a workforce capable of supporting the design, construction, operation and regulation of nuclear facilities, and the safe handling of nuclear materials.

“The NRC is thrilled to offer grant opportunities that support future-focused research aimed at helping the agency prepare for upcoming challenges,” said Raymond Furstenau, director of the NRC Office of Research. “The number of responses received to the funding opportunity announcement has been outstanding. The grants program encourages careers and research in the nuclear sector, providing expertise to keep our nuclear facilities and materials safe and secure in the future.”

The NRC is awarding the following:

Institution Name	State	Title	Amount of NRC funds
Kansas State University	Kansas	Statistical Learning Based Multiscale Safety Analysis Framework for Advanced Reactors	\$ 499,768.00
Worcester Polytechnic Institute	Massachusetts	Developing the Research Facilities, Shielding, and Licensing Strategy for a Next-Generation Hybrid Research and Power University Nuclear Reactor	\$ 499,509.00
Purdue University	Indiana	Degradation Assessment of Advanced Welds for Pressure Vessels	\$ 500,000.00
Virginia Polytechnic Institute	Virginia	Development of a Novel Multi-Modal In-Situ Detection System Supporting Human-Machine Collaboration in Core Monitoring and Control of Advanced Reactors	\$ 499,930.00
Clemson University	South Carolina	Coupling Life-Cycle Impact Assessment and Risk Assessment for Sustainability-Informed Decision Making	\$ 499,859.00

Auburn University	Alabama	Development of a Soil-Structure-Interaction Framework in Support to Enhance Regulatory Oversight for Small Modular Reactors	\$ 499,999.00
Virginia Commonwealth University	Virginia	Advanced Characterization of ATF Cladding for Understanding their Degradation Under Short-Time Temperature Excursions and Implications in Dry Storage	\$ 500,000.00
University of Cincinnati	Ohio	In Vivo Measurement of Low Energy Photon Associated with an Internal Deposition of Mixed Oxide Nuclear Fuel	\$ 455,991.00
University of Texas at Arlington	Texas	High-Fidelity Experiments and Simulations of Heat Pipe Performance under Steady-State, Transient, and Accident Conditions.	\$ 500,000.00
University of Texas at Austin	Texas	Advanced Condition Monitoring of Dry Storage Canisters by Helical Guided Ultrasonic Waves	\$ 500,000.00
Auburn University	Alabama	A High-Throughput Approach to Establish the Regulatory Basis for Qualifying Laser Additive Manufactured Stainless Steel for Nuclear Applications	\$ 500,000.00
		Total Awards	\$ 5,455,056.00

The NRC announces grant opportunities on www.grants.gov, which enables the public to find and apply for federal funding opportunities. A panel of expert reviewers, from academia and the NRC, evaluates the grant proposals. The panel composition is diverse, with most reviewers having experience reviewing proposals for government agencies and advanced credentials in nuclear engineering, health physics, radiochemistry, or related disciplines. All panelists must certify no conflict of interest for the proposals they evaluate.