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**IASCC Test Facility for University of Florida Nuclear fuel and Structural Materials Research Center**

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**Program:** General Scientific  
Infrastructure

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**ABSTRACT:** To further enhance the research capability at the University of Florida Integrated Nuclear Fuel and Structural Materials (INFS) research center, we propose to add the Irradiation Assisted Stress Corrosion Cracking (IASCC) test facility to its capacity. The INFS center has already benefited from the installed infrastructure of the reactor and other associated radioactive materials characterization and testing facilities funded through the NEUP reactor upgrade award (Y2015). The development path for the UF INFS research center is to enable a suite of equipment for nuclear materials research to be a Nuclear Science User Facilities (NSUF) University Partner Facility, and it will be dedicated for use by all institutions across the U.S. needing this capability. In line with DOE/NE's missions, the acquisition of the proposed IASCC test facility has the following specific aims:

1. Fill the nationally wide need gap for IASCC test facility in order to support the materials degradation and advanced nuclear materials development for the LWR Sustainability (LWRS) program.
2. Support the on-going, under-review and near future nuclear materials research at the University of Florida.
3. Train the next generation of work force for nuclear engineering R&D sector with radioactive materials hands-on experience.