Procurement of Spare Digital Recorders, Replacement Portal Monitor, and Pool Lighting System at the Missouri S&T Reactor

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ABSTRACT:

The Missouri University of Science and Technology Reactor (MSTR) is a pool-type research reactor that first achieved criticality in 1961. It is the oldest reactor in the state of Missouri, and it plays an important role in education and training of future nuclear engineers and nuclear scientists. This funding will be used to procure spare digital recorders for the MSTR control console. These digital recorders are used to monitor reactor power and related parameters and are integral to most day-to-day reactor operations. The spare recorders will ensure future reliability of the facility for students and researchers. Additionally, a new portal monitor, a safety instrument used to detect personal contamination, will replace a deteriorating 60-year-old unit. Finally, a pool lighting system will be installed that will allow reactor operators and staff to more easily inspect the pool, core, and fuel storage area. The lighting system will enhance the safety of fuel handling and improve operational efficiency.

Approximately 2500 students, visitors and trainees visit or work in the MSTR each year. The reactor is a powerful tool for recruiting students into the Nuclear Engineering discipline and provides operator training and research experience for students. The continued ability to bring students and visitors through the reactor will be ensured by procuring spare parts and bolstering facility reliability and safety.