



University Reactor Upgrades Infrastructure Support for the MITR Research Reactor in Support of Operational Safety

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Collaborators: N/A

Program: Reactor Upgrades

ABSTRACT:

Objectives: The objective of this proposal is to improve reactor safety by procuring and installing a state-of-the-art effluent detection system that will provide monitoring capability for both routine operation and the emergency conditions specified by 10 CFR 20.

Description: Funds of \$450,000.00 are requested to procure two Canberra CAM 200 effluent monitoring (iodine/particulate and noble gas) systems. These units, which come pre-assembled, will replace our aging monitors and ensure that our facility is fully compliant with all regulations concerning effluent releases including both the capability to monitor the low-level ones associated with routine operation and the higher ones for which there is a legal requirement to measure even though they might never exist.

Relevance and Outcomes/Impacts: The immediate outcome will be the installation of redundant state-of-the-art effluent monitors for airborne releases via the reactors exhaust stack. The range of this instrumentation is such that both routine and emergency monitoring can be accomplished even though the need for the latter is remote. This is an important safety consideration. Also, this addition to the MITR infrastructure will improve the reliability of reactor operation - less downtime for repairs. That, in turn, makes the facility more reliable and hence more attractive to experimenters.