

DOE-ID NEPA CX DETERMINATION

SECTION A. Project Title: Nuclear Instrumentation Upgrade for MURR Reactor Power Level Monitoring – University of Missouri

SECTION B. Project Description

The objective of this project is to replace the Nuclear Instrumentation (NI) and associated components of the University of Missouri Research Reactor (MURR). The NI system monitors and displays neutron flux from subcritical source multiplication range, through intermediate range to full power, while also providing reactor period information. The measurements provide input signals to the Reactor Safety System, which is designed to prevent operation of the reactor in regions in which fuel damage could occur. This is accomplished by promptly placing the reactor in a subcritical, safe shutdown condition by a reactor scram.

SECTION C. Environmental Aspects / Potential Sources of Impact

The action consists of funding the purchase of equipment and instruments for an existing program. The action would not create additional environmental impacts above those already occurring at the university.

SECTION D. Determine the Level of Environmental Review (or Documentation) and Reference(s): Identify the applicable categorical exclusion from 10 CFR 1021, Appendix B, give the appropriate justification, and the approval date.

Note: For Categorical Exclusions (CXs) the proposed action must not: 1) threaten a violation of applicable statutory, regulatory, or permit requirements for environmental, safety, and health, including requirements of DOE orders; 2) require siting and construction or major expansion of waste storage, disposal, recovery, or treatment facilities; 3) disturb hazardous substances, pollutants, contaminants, or CERCLA-excluded petroleum and natural gas products that pre-exist in the environment such that there would be uncontrolled or unpermitted releases; 4) adversely affect environmentally sensitive resources. In addition, no extraordinary circumstances related to the proposal exist which would affect the significance of the action, and the action is not “connected” nor “related” (40 CFR 1508.25(a)(1) and (2), respectively) to other actions with potentially or cumulatively significant impacts.

References: B2.2 Installation of, or improvements to, building and equipment instrumentation (including, but not limited to, remote control panels, remote monitoring capability, alarm and surveillance systems, control systems to provide automatic shutdown, fire detection and protection systems, announcement and emergency warning systems, criticality and radiation monitors and alarms, and safeguards and security equipment).

Justification: The activity consists of replacing nuclear instrumentation for operational purposes.

Is the project funded by the American Recovery and Reinvestment Act of 2009 (Recovery Act) Yes No

Approved by Jack Depperschmidt, DOE-ID NEPA Compliance Officer on 5/17/2012