

# DOE-ID NEPA CX DETERMINATION

**SECTION A. Project Title: A NEUP Minor Reactor Upgrade Request for Enhancement of Safety and Operational Monitoring Systems and Research Capabilities of the Ohio State University Nuclear Reactor Laboratory**

**SECTION B. Project Description**

The object of this project by the University of Wisconsin is to upgrade outdated systems critical to operation of the reactor and laboratory to ensure their long-term viability for serving the education and research missions of both OSU and DOE. Equipment and instrumentation purchased is related to the performance, control or operational capability of the reactor and/or associated facility and for radiation detection and measurement in laboratories directly related to the reactor facility. Equipment includes control-room instrumentation, reactor startup channel, reactor power linear channel, reactor period channel, gaseous-effluent monitoring channel, and gamma-ray spectroscopy system equipment.

The upgrades will enhance the safety, performance, control or operational capability of reactor systems; increase the quality, safety/security, or efficiency of the operation of the reactor facility; and improve or expand the research, teaching and training capabilities of the reactor facility.

**SECTION C. Environmental Aspects / Potential Sources of Impact**

Radioactive Material Use – A fission chamber, which contains uranium, will be acquired. Acquisition and operation will be covered by Ohio State’s NRC Facility License No. R-75 (Docket 50-150). Calibration sources will be purchased and used under the OSU Broadscope license 02110250037. The radiation levels of retired fission chamber neutron detector and compensated ion chamber are expected to be low enough that they will be used in student labs or for lecture props.

**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 upgrading and replacing equipment for research 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 11/28/2011