

# DOE-ID NEPA CX DETERMINATION

**SECTION A. Project Title: Nuclear Engineering Teaching and Research Facilities Upgrade at the University of Illinois at Urbana-Champaign**

**SECTION B. Project Description**

The University of Illinois proposes to purchase equipment to upgrade the Nuclear Fuel Cladding and Structural Analysis Laboratory. The equipment includes an electrolytical polisher for bulk materials, an electrolytical polisher for transmission electron microscope specimens, a perchloric acid laboratory hood, and a nuclear glove box.

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

Radioactive Material Use/Radioactive Waste Generation – Neutron irradiated specimens may be prepared for electron microscopy examination. Preparation techniques include chemical thinning or polishing of samples. Preparation is done in a closed, confined environment where all chemical solution is collected and disposed of under guidance of the Radiation Safety Division at the University of Illinois. The total amount of waste fluids should be less than 1 liter.

**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: B1.31 Installation or relocation and operation of machinery and equipment (including, but not limited to, laboratory equipment, electronic hardware, manufacturing machinery, maintenance equipment, and health and safety equipment), provided that uses of the installed or relocated items are consistent with the general missions of the receiving structure. Covered actions include modifications to an existing building, within or contiguous to a previously disturbed or developed area, that are necessary for equipment installation and relocation. Such modifications would not appreciably increase the footprint or height of the existing building or have the potential to cause significant changes to the type and magnitude of environmental impacts.

Justification: The activity consists of purchasing equipment for research and educational 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 11/5/13