

DOE-ID NEPA CX DETERMINATION

SECTION A. Project Title: Enhancing the Nuclear Engineering Research Infrastructure in the Core Areas of Materials and Radiation Detection at VCU – Virginia Commonwealth University

SECTION B. Project Description

Virginia Commonwealth University proposes to purchase and install a bench-top scanning electron microscope with electron energy dispersive x-ray spectroscopy, an x-ray source, scintillation detectors, and an electrometer and ion chamber to boost the research capabilities in the two core areas of nuclear materials and radiation detection at VCU.

SECTION C. Environmental Aspects / Potential Sources of Impact

The X-ray source will produce an X-ray photon beam when electrically energized, but the X-ray machine is not designated a radioactive material. VCU's EH&S division's Radiation Safety Office will oversee installation and regulation of the device. 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: 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 08/04/2014