

# DOE-ID NEPA CX DETERMINATION

**SECTION A. Project Title: Instrumentation in Support of the Michigan Advanced Nuclear Imaging Center (MINIC) – University of Michigan**

**SECTION B. Project Description**

The University of Michigan proposes to expand the research and teaching capabilities offered in the Department of Nuclear Engineering & Radiological Sciences (NERS) at the University of Michigan, by developing a new multi-disciplinary Michigan Nuclear Imaging Center (MINIC). The establishment of this center will combine the capabilities and expertise of the existing Neutron Science (NSL) and Experimental and Computational Multiphase Flow (ECMF) laboratories to address a broad range of applications requiring advanced high-resolution imaging techniques. To accomplish this, the University of Michigan will purchase fast VME and desktop nuclear electronics, an EM-ICCD camera, a He detector fitted with a SiPM array, a Medipix/Timepix detector, a fiber optic distributed sensor, an Ultrasonic Doppler velocimetry profilometry, and an Infrared camera.

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

Radioactive Material Use – The radiation detection instrumentation will be calibrated and tested using existing small, sealed radioisotope sources already available at the University of Michigan.

The action consists of purchasing equipment to be used in research and teaching. 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 and installing equipment for teaching and research purposes.

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

Approved by Jason Sturm, DOE-ID NEPA Compliance Officer on 4/6/2017