

DOE-ID NEPA CX DETERMINATION

SECTION A. Project Title: Research and Teaching Equipment for Nuclear Materials Characterization – U.C.-Berkeley

SECTION B. Project Description

The University of California-Berkeley proposes to purchase a retractable annular STEM detector, 6-channel detector amplifier, atomic force microscope, high temperature chamber for a tensile tester, and an in-situ micromechanical testing device.

SECTION C. Environmental Aspects / Potential Sources of Impact

Radioactive Material Use/Radioactive Waste Generation – Radioactive materials supplied from DOE facilities or industry will be used. The individual samples are going to be 5 mm x 5mm x 2 mm or smaller. The samples will be activated steel containing mostly Mn54 and Co60. The specimens will be cleaned prior to observation which will lead to waste generation. UC Berkeley has a waste stream for contaminated waste and the resulting waste will be disposed through the campus ES&H channels. No radioactive material or waste will be moved, received, or handled without prior approval by ES&H.

Chemical Use/Storage / Chemical Waste Disposal – For specimen cleaning, acetone and ethanol are needed. This will create acetone or ethanol containing waste. UC Berkeley and the nuclear materials group can dispose of the generated waste through ES&H channels and will dispose it through the standard waste stream installed already. The necessary chemicals will be stored in the existing waste storage facility.

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 11/8/13