

DOE-ID NEPA CX DETERMINATION

SECTION A. Project Title: Installation of a Novel High Throughput Micro- and Macro-Machining Capability for Pre- and Post-Irradiation Examination – University of California, Berkeley

SECTION B. Project Description

The University of California, Berkeley proposes to purchase and install a novel cutting and machining tool enabled by femto second lasers. This will accelerated the machining and shaping of micro- and macro-scale samples retrieved from reactors or ion beam irradiations. This will take advantage of novel femtosecond low damage machining capabilities allowing to reduce the time needed on focused ion beam machining and enable large number of samples to be processed while fostering the development of new geometries for advanced materials testing.

SECTION C. Environmental Aspects / Potential Sources of Impact

It is the intention to use the equipment to machine radioactive materials, and radioactive wastes will be generated. The waste is handled through the university Environmental Safety and Health office. 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 07/10/2018