

DOE-ID NEPA CX DETERMINATION

SECTION A. Project Title: Fission Product Yield Data in Support of Advanced Reactor Technology, CFP-13-4815 – University of New Mexico

SECTION B. Project Description

The University of New Mexico, in collaboration with Los Alamos National Laboratory (LANL), proposes to develop and use a fission fragment spectrometer for radiation detection. The spectrometer will measure nuclei coming out of fissioning material. The material will be made to fission using a neutron beam.

SECTION C. Environmental Aspects / Potential Sources of Impact

Radioactive Material Use – Development work will be done at the University of New Mexico and will involve testing and calibrating detectors using sealed radioactive sources. The work is done with approval of the University Department of Safety and Risk Services, radiation safety office. The use of the detectors involves experiments at LANL using an actinide target, U-235, and in the future will use Pu-239 and other actinides as approved by LANL. The targets will be in the Los Alamos Neutron Science Center neutron beam to instigate fission.

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: B3.6 Siting, construction, modification, operation, and decommissioning of facilities for small-scale research and development projects; conventional laboratory operations (such as preparation of chemical standards and sample analysis); and small-scale pilot projects (generally less than 2 years) frequently conducted to verify a concept before demonstration actions, provided that construction or modification would be within or contiguous to a previously disturbed or developed area (where active utilities and currently used roads are readily accessible). Not included in this category are demonstration actions, meaning actions that are undertaken at a scale to show whether a technology would be viable on a larger scale and suitable for commercial development.

Justification: The activity consists of developing a fission fragment spectrometer for research 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 12/23/2013