DOE-ID NEPA CX DETERMINATION

CX Posting No.: DOE-ID-14-046

SECTION A. Project Title: Multi-Sensor Inspection and Robotic Systems for Dry Storage Casks – Pennsylvania State University

SECTION B. Project Description

The objective of Pennsylvania State University's research is to develop sensors, monitoring methodologies, and a delivery system to ensure safe dry storage of used nuclear fuel.

SECTION C. Environmental Aspects / Potential Sources of Impact

The action will use existing facilities and will not create additional environmental impacts above those already occurring at the university. Gamma testing of the systems will be conducted at Penn State's Radiation Science and Engineering Center and will follow existing university procedures.

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 performing laboratory scale tests to develop sensors, monitoring methodologies, and a delivery system to ensure safe dry storage of used nuclear fuel.

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 08/12/2014