

DOE-ID NEPA CX DETERMINATION

SECTION A. Project Title: Virginia Tech Radiation Measurement, Simulation and Visualization Laboratory

SECTION B. Project Description

Virginia Tech aims to establish a laboratory for research and education in the area of radiation measurement, simulation, and visualization. This will be accomplished by acquiring a basic set of radiation detection instruments and sources along with a computer cluster and displays to provide particle transport measurement, simulation, and visualization. The facility will support ongoing research, train students, and support public outreach to local schools.

SECTION C. Environmental Aspects / Potential Sources of Impact

Radioactive Material Use – Radioactive material would be used under Virginia Radioactive Material license #121-225-1. An assortment of alpha, beta, x-ray, and gamma ray sources will be used in the microcurie, millicurie, and curie quantities. This use would adhere to the requirements of the Virginia Tech Radioactive Material Safety Program.

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 purchasing equipment for research, educational, and public outreach 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 5/21/2012