

SECTION A. Project Title: DOE Traineeship in Nuclear and Radiochemistry at Washington State University and Colorado School of Mines**SECTION B. Project Description**

Washington State University and the Colorado School of Mines propose to train graduate students in radiochemistry through an innovative pathway, involving a mature academic radiochemistry program at Washington State University (WSU) and a similar emerging program at Colorado School of Mines (CSM), in partnership with three national laboratories each differing in their mission: Idaho National Laboratory (INL), a DOE-NE laboratory; Pacific Northwest National Laboratory (PNNL), a DOE-SC laboratory; and Lawrence Livermore National Laboratory (LLNL), a DOE-NNSA laboratory.

The universities propose a joint WSU-CSM radiochemistry traineeship program to develop a new generation of highly-skilled radiochemists with expertise focused on national needs. Key distinctive features of our proposed program are:

1. Two-way coursework sharing that allows a greater diversity in academic training for radiochemistry students at both universities. Together, the breadth and depth of our radiochemistry coursework options and the experience of our combined radiochemistry faculties is unsurpassed.
2. Partnerships with three different national labs (a DOE-SC laboratory, a DOE-NE laboratory, and a NNSA laboratory) covering radiochemistry research related to nuclear energy, the environment, and national security.
3. One-year long student research internships at partner national labs with opportunities to experience first-hand how team-based science can be successfully conducted.
4. Seminars and professional development workshops built on modules designed to augment the student mentoring already provided by faculty advisors in areas such as career options, approaches to innovation, writing and presentations, and project management strategies and implementation.

SECTION C. Environmental Aspects / Potential Sources of Impact

Radioactive materials will be used for some work and radioactive waste and mixed wastes (e.g. radioactive materials in mixed liquid phases) will be generated and disposed according to the institution, the state and federal rules. For example, at WSU Radiation Safety Office (RSO) supports the University's research and outreach mission by administering a program that ensures the safe use of radioactive materials and radiation machines at WSU. The RSO officers support WSU researchers in the planning of safe experimental setups, laboratory surveys, and radioactive waste collections. Hazardous wastes (e.g. aqueous solutions of pH < 5) will be generated and disposed according to the institution, the state, and federal rules. This project will employ chemicals; chemical storage and waste will be managed according to the institution, the state and federal rules.

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 university-scale teaching and research focused on radiochemistry.

Approved by Jack Depperschmidt, DOE-ID NEPA Compliance Officer on 08/25/2016