

**DOE-ID NEPA CX DETERMINATION**  
**Idaho National Laboratory**

**SECTION A. Project Title:** Radioisotope Power System Heat Source Storage Project

**SECTION B. Project Description and Purpose:**

The Space Nuclear Power and Isotope Technologies Division at Idaho National Laboratory (INL) desires to transfer storage of seven assembled heat sources from the Space and Security Power System Facility (SSPSF) at the Materials and Fuels Complex (MFC) to building Chemical Processing Plant (CPP)-651 at the Idaho Nuclear Technology and Engineering Center (INTEC). Each heat source contains 24 iridium-encapsulated Plutonium-238 oxide (PuO<sub>2</sub>) pressed fuel spheres, representing approximately six kilograms (kg) PuO<sub>2</sub> for each heat source (at the time of assembly without considering radioactive decay). Transfer of the heat sources would be accomplished in a manner consistent with approved INL transportation systems and is desired to accommodate future mission work in SSPSF. The heat sources would be stored at CPP-651 pending further direction from Department of Energy (DOE) (Nuclear Energy [NE] 75) regarding future use or disposition.

The proposed action would include 1) placing the heat sources in an approved transfer device in SSPSF, 2) loading the transfer device into an approved transportation system, and 3) transporting the heat sources from MFC to INTEC. It is anticipated transfer would be performed as an out-of-commerce shipment using the multipurpose haul road between MFC and INTEC. The heat sources would then be placed into dedicated storage at CPP-651.

The proposed action would use current facilities and equipment at INL and would not require modification of any facilities. Transfer of the heat sources is expected to occur over several months during Fiscal Year (FY) 2016-2017. The estimated cost for the transfer activity is not expected to exceed \$1 million.

Although CPP-651 has never been used to store PuO<sub>2</sub> heat source material, consideration for its use in storing PuO<sub>2</sub> powder (in quantities of a few kg) produced from the processing of irradiated Np-237 targets at INTEC was included in the scope of DOE/Environmental Impact Statement (EIS)-310, "Final Programmatic Environmental Impact Statement for Accomplishing Expanded Civilian Nuclear Energy Research and Development and Isotope Production Missions in the United States, Including the Role of the Fast Flux Test Facility (i.e., the DOE Nuclear Infrastructure Programmatic Environmental Impact Statement [PEIS], released in November 2000; the corresponding Record of Decision [ROD] was issued on January 26, 2001 under Federal Register, Vol. 66, No. 18). The Final Environmental Impact Statement (FEIS) included evaluation of the storage, handling and transportation of containerized PuO<sub>2</sub> powder under Alternative 2, Option 8 therein.

**SECTION C. Environmental Aspects or Potential Sources of Impact:**

**Generating and Managing Waste**

The proposed action could generate paper and other office waste.

**Using, Reusing, and Conserving Natural Resources**

Transportation activities would involve using fossil fuels, which would result in the release of additional greenhouse gases.

**SECTION D. Determine Recommended Level of Environmental Review, Identify Reference(s), and State Justification:** Identify the applicable categorical exclusion from 10 Code of Federal Regulation (CFR) 1021, Appendix B, give the appropriate justification, and the approval date.

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, or similar requirements of DOE or Executive Orders; (2) require siting and construction or major expansion of waste storage, disposal, recovery, or treatment or facilities; (3) disturb hazardous substances, pollutants, contaminants, or Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)-excluded petroleum and natural gas products that pre-exist in the environment such that there would be uncontrolled or unpermitted releases; (4) have the potential to cause significant impacts on environmentally sensitive resources (see 10 CFR 1021). In addition, no extraordinary circumstances related to the proposal exist that would affect the significance of the action. In addition, the action is not "connected" to other action actions (40 CFR 1508.25(a)(1) and is not related to other actions with individually insignificant but cumulatively significant impacts (40 CFR 1608.27(b)(7)).

**References:** 10 CFR 1021, Appendix B to subpart D, item B1.30 "Transfer Actions"

**Justification:** Project activities described in this EC are consistent with 10 CFR 1021, Appendix B to Subpart D, items B1.30 "Transfer actions, in which the predominant activity is transportation, provided that (1) the receipt and storage capacity and management capability for the amount and type of materials, equipment, or waste to be moved already exists at the receiving site and (2) all necessary facilities and operations at the receiving site are already permitted, licensed, or approved, as appropriate. Such transfers are not regularly scheduled as part of ongoing routine operations."

Is the project funded by the American Recovery and Reinvestment Act of 2009 (Recovery Act)  Yes  No