

SECTION A. Project Title: Fabrication and Shipment of LEU Blocks from INL to PPPL

SECTION B. Project Description and Purpose:

Fabrication and Shipment of LEU Blocks to PPPL

Funding is being added to support the shipment of the Low Enriched Uranium (LEU) blocks from Idaho National Laboratory to Princeton Plasma Physics Laboratory (PPPL). Two LEU blocks have previously been fabricated at the Materials and Fuels Complex for the PPPL. These blocks will be used for detector development at PPPL.

The fabrication of fuel took place in the Experimental Fuels Facility (EFF, MFC-794). Feedstock material was moved into EFF from the Fuel Manufacturing Facility (FMF). The blocks were fabricated through vacuum induction casting followed by machining. The dimensions of the two blocks of uranium are 2 in. × 2 in. × 1 in., with an U-235 enrichment below 20 %.

After fabrication the two blocks were transferred to the Zero Power Physics Reactor (ZPPR) (MFC-784) for storage. These two blocks of LEU will now be transported to PPPL in Type AF 9979 drums and will follow packaging and shipping requirements in accordance with DOE O 460.2b, "Departmental Materials Transportation and Packaging Management."

An estimate of \$ 66,244.55 is being added to address shipping costs not included in the Statement Of Work (ZKP 2.0/SOW 005, January 26, 2022) pertaining to fabrication of two LEU blocks for PPPL. The current cost estimate includes labor, materials, uranium handling/packaging, a single dedicated shipment of the two blocks (each block in its own Type AF 9979 drum) to PPPL, and the receipt and return to storage of the two empty drums returned by PPPL to INL. The LEU blocks will not be returned. No waste will be generated from the transfer/shipment of the LEU blocks to PPPL. NOTE: This estimate does not include shipment costs associated with returning the empty drums from PPPL to INL for storage.

Plan is to load the LEU blocks by end of September and ship shortly after or no later than October.

SECTION C. Environmental Aspects or Potential Sources of Impact:

Air Emissions

NA

Discharging to Surface-, Storm-, or Ground Water

NA

Disturbing Cultural or Biological Resources

Cultural: Pursuant to the 2023 Programmatic Agreement between DOE-ID and the ID SHPO, the proposed action does not meet the threshold of a federal undertaking and there is no effect to historic properties. Actions at other facilities may require Section 106 review at those facilities.

Generating and Managing Waste

NA

Releasing Contaminants

NA

Using, Reusing, and Conserving Natural Resources

NA

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Environmental Justice

Assuming that all applicable federal, state, and local regulations are adhered to, any impact to environmental justice in the community of origin, communities along the transportation route, or the destination community is expected to be negligible.

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 Department of Energy (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: B1.24 "Property transfers"

Justification: Based on the purpose and need and description of the proposed action and potential environmental impacts, the proposed action fits within the class of actions that is listed in Appendix B CX B1.24. There are no extraordinary circumstances related to the proposed action that may affect the significance of the environmental effects of the proposal. The proposed action has not been segmented to meet the definition of a categorical exclusion. This proposal is not connected to other actions with potentially significant impacts (40 CFR 1508.25(a)(1)), is not related to other actions with individually insignificant but cumulatively significant impacts (40 CFR 1508.27(b)(7)) and is not precluded by 40 CFR 1506.1 or 10 CFR 1021.211 concerning limitations on actions during preparation of an environmental impact statement.

Authorizing the proposed action will not (1) threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health, including DOE and/or Executive orders; (2) require siting of new facilities or expansion of existing facilities; (3) disturb hazardous substances, pollutants, or contaminants; (4) adversely affect environmentally sensitive resources; or (5) involve genetically engineered organisms, synthetic biology, governmentally designated noxious weeds, or invasive species.

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

Approved by Robert Douglas Herzog, DOE-ID NEPA Compliance Officer on: 9/18/2024