U.S. Department of Energy
Categorical Exclusion Determination Form

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Proposed Action Title: Construction and Operation of the Large Item Neutron Assay System at the Paducah Site

Program or Field Office: Portsmouth/Paducah Project Office (PPPO)

Location(s) (City/County/State): Kevil/McCracken/Kentucky

Proposed Action Description:

The U.S. Department of Energy (DOE) proposes to perform alterations to a building and construct a support structure to house a Large Item Neutron Assay System (LINAS) and install other necessary support equipment in order to perform nondestructive assay characterization of large pieces of equipment, piping, and other applicable components.

The proposed activity will involve constructing a permanent prefabricated support building and a concrete shell housing for the LINAS within the support building, which will be located adjacent to the south side of the existing C-409 facility. The C-409 facility also will be altered to incorporate a scale for weighing the large pieces of equipment and piping before being characterized by the LINAS. The LINAS has neutron detectors contained in a concrete shell housing to reduce cosmic ray interference, which allow for the nondestructive measurement of radioactive contamination contained in the former process equipment, piping, and components.

The proposed activity will be constructed on previously disturbed land inside the Paducah Site boundary at a concrete pad adjacent to the existing C-409 facility that previously was used as storage, and inside the C-409 facility

Categorical Exclusion(s) Applied:

B1.11 - Fencing

B1.31 - Installation or relocation of machinery and equipment

B2.2 - Building and equipment instrumentation

B6.5 - Facilities for characterizing and sorting packaged waste and overpacking waste

For the complete DOE National Environmental Policy Act regulations regarding categorical exclusions, including the full text of each categorical exclusion, see Subpart D of 10 CFR Part 1021.

Regulatory Requirements in 10 CFR 1021.410(b): (See full text in regulation)

☑ The proposal fits within a class of actions that is listed in Appendix A or B to 10 CFR Part 1021, Subpart D.

To fit within the classes of actions listed in 10 CFR Part 1021, Subpart D, Appendix B, a proposal must be one that would not: (1) threaten a violation of applicable statutory, regulatory, or permit requirements for environment, 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 facilities (including incinerators), but the proposal may include categorically excluded waste storage, disposal, recovery, or treatment actions or facilities; (3) disturb hazardous substances, pollutants, contaminants, or CERCLA-excluded petroleum and natural gas products that preexist in the environment such that there would be uncontrolled or unpermitted releases; (4) have the potential to cause significant impacts on environmentally sensitive resources, including, but not limited to, those listed in paragraph B(4) of 10 CFR Part 1021, Subpart D, Appendix B; (5) involve genetically engineered organisms, synthetic biology, governmentally designated noxious weeds, or invasive species, unless the proposed activity would be contained or confined in a manner designed and operated to prevent unauthorized release into the environment and conducted in accordance with applicable requirements, such as those listed in paragraph B(5) of 10 CFR Part 1021, Subpart D, Appendix B.

☑ There are no extraordinary circumstances related to the proposal that may affect the significance of the environmental effects of the proposal.

☑ The proposal 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.

Based on my review of the proposed action, as NEPA Compliance Officer (as authorized under DOE Order 451.1B), I have determined that the proposed action fits within the specified class(es) of action, the other regulatory requirements set forth above are met, and the proposed action is hereby categorically excluded from further NEPA review.

NEPA Compliance Officer: Cynthia A. Zvonar Digitally signed by Cynthia A. Zvonar Date: 2021.01.25 11:58:20 -05'00' Date Determined:

(This form will be locked for editing upon signature)