



Office of Environmental Management  
U.S. Department of Energy  
Categorical Exclusion Determination Form

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Proposed Action Title: DWPF Process Simulation, Rev. 14

Program or Field Office: Savannah River Site

Location(s) (City/County/State): Aiken/Aiken County/South Carolina

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Proposed Action Description:

The Chemical Flowsheet Development (CFD) personnel will conduct laboratory scale simulations of the Defense Waste Processing Facility (DWPF) process at the Aiken County Technology Laboratory (ACTL). These simulations use non-radioactive simulants of the DWPF process streams during the testing. These process streams may also include both the Actinide Removal Process (ARP) and the Modular Caustic Side Solvent Extraction Unit (MCU) streams included in DWPF processing.

Revision 14 expands the scope of work to include generation of simulants supporting the Direct Feed High Level Waste (DFHLW) process at Hanford, including the preparation of rheological simulants composed of minerals (e.g., zirconia, gibbsite, iron oxide, silica, bismuth oxide, and tungsten oxide), thickeners (xanthan gum, kaolin clay, and bentonite clay), and metals (stainless steel) suspended in salt solution (containing sodium salts of nitrite, nitrate, hydroxide, aluminate, sulfate, carbonate, phosphate, and chloride).

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Categorical Exclusion(s) Applied:

B3.6 SMALL-SCALE RESEARCH AND DEVELOPMENT, LABORATORY OPERATIONS, AND PILOT PROJECTS

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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.

\*In accordance with Executive Order 14154, effective April 11, 2025, CEQ has removed the regulations implementing NEPA (40 CFR 1500-1508). DOE will continue to comply with the National Environmental Policy Act (NEPA) of 1969, as amended, (42 U.S.C. §§ 4321 et seq.) and DOE's NEPA Implementing Procedures (10 CFR 1021).

Based on my review of the proposed action, 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:

Date Determined: 04/08/2026

Comments: EEC No: TC-W-2011-0122 Rev No: 14