



U.S. Department of Energy

Categorical Exclusion Determination Form

Proposed Action Title:

Program or Field Office:

Location(s) (City/County/State):

Proposed Action Description:

Categorical Exclusion(s) Applied:

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:

Date Determined:

Attachment A: Projects in the GEMINA (FOA No. DE-FOA-0002174) Program

Prime Recipient (Control No.)	Project Title	Categorical Exclusion
Argonne National Laboratory (2174-1538)	Maintenance of Advanced Reactor Sensors and Components (MARS)	A9; B3.6
Electric Power Research Institute, Inc. (2174-1529)	Build-to-Replace: A New Paradigm for Reducing Advanced Reactor O&M Costs	A9
X Energy, LLC (2174-1535)	Advanced Operation & Maintenance Techniques implemented in the Xe-100 Plant Digital Twin to reduce Fixed O&M Cost	A9
GE Research (2174-1511)	AI Enabled Predictive Maintenance Digital Twins for Advanced Nuclear Reactors	A9
Framatome, Inc. (2174-1541)	Diagnose Performance and Reliability Problems with Metroscope	A9; B3.6
Massachusetts Institute of Technology (2174-1542)	High Fidelity Digital Twins for BWRX-300 Critical Systems	A9
Moltex Energy USA, LLC (2174-1548)	SSR APPLIED - Automated Power Plants: Intelligent, Efficient, and Digitised	A9; B3.6
University of Michigan (2174-1557)	PROJECT "SAFARI"- SECURE AUTOMATION FOR ADVANCED REACTOR INNOVATION	A9; B3.6
Massachusetts Institute of Technology (2174-1568)	Generation of Critical Irradiation Data to Enable Digital Twinning of Molten-Salt Reactors	A9; B3.6; B3.15