



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 SMARTFARM (FOA No. DE-FOA-0002250) &
SMARTFARM SBIR/STTR (FOA No. DE-FOA-0002251) Programs**

Full Application Control Number	Lead Organization	Project Title	Categorical Exclusion
2250-1516	University of Illinois at Urbana-Champaign	The “System of Systems” Solutions for Commercial Field-Level Quantification of Soil Organic Carbon and Nitrous Oxide Emission for Scalable Applications (SYMFONI)	A9; B3.6; B3.11
2250-1525	University of Utah (Salt Lake City, Utah)	Soil organic carbon networked measurement system (SOCNET)	A9; B3.6; B3.11
2250-1530	Soil Health Institute	A Rapid In-field System to Measure Deep Soil C Stock and Flux	A9; B3.6; B3.11
2250-1538	Princeton University	NitroNet: Smart System to Quantify Nitrous Oxide Emissions	A9; B3.6; B3.11
2251-1511	Michigan Aerospace Corporation	DroN2O: A Drone-Based System for Measuring Nitrous Oxide Emissions from Agricultural Fields	A9; B3.6; B3.11
2251-1515	Dagan, Inc.	Integrating Sensors, Remote Sensing and DNDC Model for Quantifying N2O Emissions	A9; B3.6; B3.11