



## National Environmental Policy Act (NEPA) Determination Categorical Exclusion

<b>Recipient:</b>	TerraPower, LLC
<b>State:</b>	Wyoming
<b>Project Title:</b>	TerraPower Sodium Demonstration Project Survey Work
<b>Funding Opportunity Announcement Number:</b>	DE-FOA-0002271
<b>Award Number:</b>	DE-NE0009054
<b>OCED NEPA Control Number:</b>	OCED-09054-003-CX

Based on my review of the information concerning the proposed action, as NEPA Compliance Officer (authorized under DOE Policy 451.1), I have made the following determination:

**CATEGORICAL EXCLUSION APPENDIX, NUMBER, AND DESCRIPTION: B3.1 Site Characterization and Environmental Monitoring:** Site characterization and environmental monitoring (including, but not limited to, siting, construction, modification, operation, and dismantlement and removal or otherwise proper closure (such as of a well) of characterization and monitoring devices, and siting, construction, and associated operation of a small-scale laboratory building or renovation of a room in an existing building for sample analysis). Such activities would be designed in conformance with applicable requirements and use best management practices to limit the potential effects of any resultant ground disturbance. Covered activities include, but are not limited to, site characterization and environmental monitoring under CERCLA and RCRA. (This class of actions excludes activities in aquatic environments. See B3.16 of this appendix for such activities.) Specific activities include but are not limited to: (a) Geological, geophysical (such as gravity, magnetic, electrical, seismic, radar, and temperature gradient), geochemical, and engineering surveys and mapping, and the establishment of survey marks. Seismic techniques would not include large-scale reflection or refraction testing; (b) Installation and operation of field instruments (such as stream-gauging stations or flow-measuring devices, telemetry systems, geochemical monitoring tools, and geophysical exploration tools); (c) Drilling of wells for sampling or monitoring of groundwater or the vadose (unsaturated) zone, well logging, and installation of water-level recording devices in wells; (d) Aquifer and underground reservoir response testing; (e) Installation and operation of ambient air monitoring equipment; (f) Sampling and characterization of water, soil, rock, or contaminants (such as drilling using truck-or mobile-scale equipment, and modification, use, and plugging of boreholes); (g) Sampling and characterization of water effluents, air emissions, or solid waste streams; (h) Installation and operation of meteorological towers and associated activities (such as

assessment of potential wind energy resources); (i) Sampling of flora or fauna; and (j) Archeological, historic, and cultural resource identification in compliance with 36 CFR part 800 and 43 CFR part 7.

**Rationale for Determination:** In October 2020, the U.S. Department of Energy (DOE) entered into a cooperative agreement with TerraPower, LLC (TP) for the development and demonstration of the Natrium reactor, a new sodium cooled fast reactor that would be in Kemmerer, WY (Kemmerer Unit 1). The scope of the cooperative agreement includes, among other elements, construction and operation of the Test and Fill Facility (TFF) and Kemmerer Unit 1. DOE is completing an Environmental Assessment for the development and operation of the TFF. Authorization of federal funding for other project activities is contingent upon additional NEPA review. DOE has provided initial funding to TerraPower, LLC in support of those activities with completed NEPA reviews. Currently, DOE's Office of Clean Energy Demonstrations (OCED) is proposing to provide funding to TP, under the existing cooperative agreement, to perform site characterization and environmental monitoring activities for Kemmerer Unit 1 and associated macro corridors. TP is proposing to perform site characterization and environmental monitoring including: 1) Well Monitoring, Monthly, Examination of installed wells to ensure proper operation. 2) Terrestrial Surveys (Vegetation and Wildlife), three biologists will walk the site looking for plant and wildlife species of interest. A raptor nest survey will be conducted within two miles of the project site by using optical equipment while traversing paths and roads via vehicle and likely walking areas that are inaccessible by road. 3) Creek Gaging Re-installation, a gaging station which was placed in North Fork Little Muddy Creek in August 2022 was lost sometime in April 2023. Recovery has been performed by using a hook to search for the lost equipment from the bank of the creek and an individual in hip waders retrieving the instruments. The above station will be replaced by an improved, less intrusive gaging station. 4) Aquatic Surveys, surveys of fish and macroinvertebrates are to take place. Fish will be collected and released unharmed. Small minnow traps and electrofishing gear are to be used. Benthic macroinvertebrates will be collected with D-frame dip nets ("kick nets"). Samples will be preserved and sent to a laboratory. 5) Cultural Resource Visual Impact, field work will be conducted to verify cultural resources which have been determined to be visually impacted by the project. 6) Ute ladies-tresses Surveys, one or two botanists will survey area within the wetland delineations on the development site looking for the flower. Pictures and field notes will be taken; no samples will be collected. 7) Other Pedestrian Site Access Various Design and site preparatory activities will include walkdowns by TerraPower, Bechtel, Tetra Tech, and other associated site personnel which are noninvasive and nondisruptive. Examples are activities including, but not limited to, general site walkdowns, visual surveys, site inspection, non-ground disturbing equipment calibrations, non-invasive seismic monitoring etc. DOE has considered potential impacts on resources, including those of an ecological, historical, and cultural nature. DOE does not anticipate adverse impacts to any sensitive resources because of the proposed activities; however, additional information is required before DOE can review the seismic survey activities. As such, DOE has determined that seismic activities may not proceed until additional information is received and DOE has completed a separate NEPA review. Information gathered from the site characterization and environmental monitoring activities will support future NEPA reviews for TP.

The proposed action (or the part of the proposal defined in the Rationale above) 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 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 1501.9(e)(1)), is not related to other actions with individually insignificant but cumulatively significant impacts (40 CFR 1508.1(g)(3)) 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.

DOE has determined that work to be carried out outside of the United States, its territories and possessions is exempt from further review pursuant to Section 5.1.1 of the DOE Final Guidelines for Implementation of Executive Order 12114; "Environmental Effects Abroad of Major Federal Actions."

The proposed action is categorically excluded from further NEPA review.

A portion of the proposed action is categorically excluded from further NEPA review.

**Notes:** This CX does not cover the SSHAC and MAM/MASW Seismic Characterization work. That survey work will be analyzed under a separate NEPA review by DOE. Any changes to the project activities or location are subject to additional NEPA review by DOE and are not authorized for federal funding unless and until the Contracting Officer provides written authorization on those additions or modifications.

**SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.**

OCED NEPA Compliance Officer Signature:

Date: June 5, 2023