



## National Environmental Policy Act (NEPA) Determination

<b>Recipient:</b>	X-energy
<b>State:</b>	Maryland
<b>Project Title:</b>	X-energy Operations Training Facility
<b>Funding Opportunity Announcement Number:</b>	DE-FOA-0002271 (Amendment 0002)
<b>Award Number:</b>	DE-NE0009040
<b>OCED NEPA Control Number:</b>	OCED-09040-001-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:**

**CX, EA, EIS Appendix, Number, and Description: B1.15 Support Buildings:** Siting, construction or modification, and operation of support buildings and support structures (including, but not limited to, trailers and prefabricated and modular buildings) within or contiguous to an already developed area (where active utilities and currently used roads are readily accessible). Covered support buildings and structures include, but are not limited to, those for office purposes; parking; cafeteria services; education and training; visitor reception; computer and data processing services; health services or recreation activities; routine maintenance activities; storage of supplies and equipment for administrative services and routine maintenance activities; security (such as security posts); fire protection; small-scale fabrication (such as machine shop activities), assembly, and testing of non-nuclear equipment or components; and similar support purposes, but exclude facilities for nuclear weapons activities and waste storage activities, such as activities covered in B1.10, B1.29, B1.35, B2.6, B6.2, B6.4, B6.5, B6.6, and B6.10 of this appendix.

**Proposed Action:** In October 2020, the U.S. Department of Energy's (DOE) Advanced Reactor Demonstration Program entered into a cooperative agreement with X-energy for the development and demonstration of an advanced nuclear reactor. The scope of the cooperative agreement includes, among other elements, the development and operation of a training facility. Prior to entering into the cooperative agreement with X-energy, DOE completed a NEPA review and issued a categorical exclusion for design, planning, and administrative activities. DOE has provided initial funding to X-energy in support of those activities. Authorization of federal funding for other project activities is contingent upon additional NEPA review. At this time, DOE's Office of Clean Energy Demonstrations (OCED) is proposing to provide funding to X-energy (XE), under the existing cooperative agreement, to renovate a pre-existing office building in a developed area, leased by XE, located at 5303 Spectrum Dr. Suite K, Frederick, MD for an operations training facility. The CX would cover the operations training facility

renovations in the interior of the building which will not expand the pre-existing buildings footprint and associated training activities using computer systems and standard office equipment. X-energy training activities would be in support of the Xe-100 advanced small modular reactor and include the use of a reactor simulator and routine office work. Proposed training activities would include design activities, Verification and Validation (V&V) activities including Integrated System Validation (ISV), procedure and training development activities, and long-term operations training. The Facility would have a full-scale, plant reference simulator for the XE-100, a digital control system (DCS) used to test both the control logic and human-machine interface (HMI) and for training operators, and Reactor Protection System (RPS) prototype cabinets. Existing corporate health, safety, and environmental policies and procedures would be followed at the facility. The facility would require an emergency generator that would be subject to permitting under Maryland's Department of the Environment. DOE has considered potential impacts on resources, including those of an ecological, historical, and cultural nature. DOE does not anticipate adverse impacts on these resources. DOE would complete the NEPA process for the Xe-100 facility and other project components when sufficient information is available to conduct a meaningful review.

**Terms and Conditions:** This categorical exclusion applies to those activities associated with the operations training facility located in Maryland including interior building renovations, office work, and design and training activities only. 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.

**FOR CATEGORICAL EXCLUSIONS:**

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, or
- (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.

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

OCED NEPA Compliance Officer:

Date:

**Kristin Kerwin**

Digitally signed by Kristin Kerwin  
Date: 2023.02.16 09:18:11 -07'00'

**OCED PROJECT MANAGEMENT DIVISION DIRECTOR**

Project Management Division Director review required.

**BASED ON MY REVIEW I CONCUR WITH THE DETERMINATION OF THE NEPA COMPLIANCE OFFICER:**

Project Management Division Director:

Date:

**OCED DEPUTY DIRECTOR**

OCED Deputy Director review required.

**BASED ON MY REVIEW I CONCUR WITH THE DETERMINATION OF THE NEPA COMPLIANCE OFFICER AND PROJECT MANAGEMENT DIVISION DIRECTOR:**

OCED Deputy Director:

Date: