

**Enclosure 1: Affidavit Supporting Request for Withholding from Public Disclosure (10 CFR 2.390)**

I, Bradley Rearden, Senior Director, Microreactor Programs of X Energy, LLC (X-energy), do hereby affirm and state to the best of my knowledge as follows:

1. I am authorized to execute this affidavit on behalf of X-energy. I am authorized to review information submitted to or discussed with the U.S. Nuclear Regulatory Commission (NRC) and request the withholding of information from public disclosure. As required by 10 CFR 2.390(b), I am bringing to the attention of NRC that Enclosure 2 to X-energy's letter from Michael I. Dudek to the NRC, dated December 13, 2024, which provides an X-energy licensing topical report (LTR) on Principal Design Criterial (PDC), Rev. 2, for the XENITH microreactor, contains information controlled by the U.S. Department of Defense (DOD) and has been marked Controlled Unclassified Information (CUI), and, therefore, am requesting that such information be withheld from public disclosure by NRC.
2. I have knowledge of the criteria used by X-energy in designating information as CUI.
3. Pursuant to the provision of paragraph (b)(4) of 10 CFR 2.390, I present the reasons are set forth below for NRC's consideration in determining whether the information sought to be withheld from public disclosure should be so withheld.
  - a. The information sought to be withheld from public disclosure in Enclosure 2 is owned by X-energy. This information was prepared with the explicit understanding that the information itself would be treated as confidential and has been held in confidence by X-energy.
  - b. The information sought to be protected in Enclosure 2 is not available to the public.
  - c. The information contained in Enclosure 2 is of the type that is customarily held in confidence by X-energy, and there is a rational basis for doing so. The information X-energy is requesting to be withheld from public disclosure includes technical information related to the design, analysis and operations associated with our XENITH microreactor design that directly impact our business development and commercialization efforts. X-energy limits access to this confidential/ CUI information in order to maintain confidentiality.
  - d. Enclosure 2 contains updated information about the planned activities of X-energy related to the development of PDC for the XENITH microreactor which relates to the DOD program for our XENITH microreactor. Public disclosure of the information contained in Enclosure 2 would create substantial harm to X-energy because it would reveal valuable technical information regarding X-energy's design development, competitive expectations, assumptions, current position and strategy. Its use by a competitor could substantially improve the competitor's position in the design, manufacture, licensing, construction, and operation of a similar competing product.
  - e. The CUI information contained in Enclosure 2 is transmitted to the NRC in confidence and under the provisions of 10 CFR 2.390; it is to be received in confidence by the NRC under the provisions of 32 CFR Part 2002; it must be withheld from disclosure and is to be received in confidence by the NRC.



**X Energy, LLC**  
801 Thompson Avenue  
Rockville, MD 20852  
+1 301.358.5600

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- f. Enclosure 2 contains CUI under DOD Distribution Statement F. Further Dissemination only as directed by The Strategic Capabilities Office, Meadows 1 4755 Meadow Wood Lane, Chantilly, VA 20151, 04 January 2024, or higher DOD Authority.

I declare under the penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief. Executed on this 16<sup>th</sup> day December 2024

Sincerely,

Bradley T. Rearden  
Senior Director, XENITH Microreactor Program  
XENITH  
X Energy, LLC