



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

February 11, 2026

Mr. James Fogarty
Licensing Manager, Xe-100
X Energy, LLC.
530 Gaither Road, Suite 700
Rockville, MD 20850

SUBJECT: U.S. NUCLEAR REGULATORY COMMISSION'S FINAL SAFETY EVALUATION FOR X ENERGY, LLC'S., TOPICAL REPORT 010229, REVISION 2, "PLUME EXPOSURE PATHWAY EMERGENCY PLANNING ZONE SIZING METHODOLOGY" (EPID L-2024-TOP-0034)

Dear Mr. Fogarty:

By letter dated November 14, 2025 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML25318A046), X Energy, LLC (Xe) submitted Revision 2 of its "Xe-100 Licensing Topical Report (TR) Plume Exposure Pathway Emergency Planning Zone Sizing Methodology," to the U.S. Nuclear Regulatory Commission (NRC) staff for review. The TR allows a reactor applicant or licensee to apply the described risk-informed methodology to determine a design- and site-specific plume exposure pathway (PEP) emergency planning zone (EPZ) size for the Xe-100 plant design.

The enclosure to this letter provides the NRC staff's final safety evaluation (SE) (Enclosure 1) for Xe's Plume Exposure Pathway Emergency Planning Zone Sizing Methodology TR, which is in ADAMS as a non-publicly available document due to the proprietary information contained in it. A redacted version of the SE is provided as Enclosure 2 to this letter. This letter and enclosures will be transmitted to Xe via the NRC's External SharePoint site. The NRC staff concluded that the TR is approved for use subject to the limitations and conditions documented in the SE. The NRC staff requests that Xe submit an accepted version of the Plume Exposure Pathway Emergency Planning Zone Sizing Methodology TR (both, unredacted and redacted) within 3 months of the receipt of this letter. The accepted version shall incorporate this letter and the enclosed SE.

J. Fogarty

If you have any question, please contact Adrian Muñiz via email at Adrian.Muniz@nrc.gov.

Sincerely,



Signed by Neuhausen, Alissa
on 02/11/26

Alissa Neuhausen, Chief
Advanced Reactor Licensing Branch 2
Division of Advanced Reactors and Non-Power
Production and Utilization Facilities
Office of Nuclear Reactor Regulation

Project No.: 99902071

Enclosures: As stated

Cc: X-Energy Xe-100 via GovDelivery
jmaddocks@x-energy.com

J. Fogarty

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ADAMS Accession Nos.:

Letter: ML26034C379

Enclosure 1: ML26034C380 (Proprietary)

Enclosure 2: ML26034C381 (Non-Proprietary)

NRR-043

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