



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

February 2, 2023

Mr. Travis Chapman
Director, U.S. Licensing, Xe-100 Program
X Energy, LLC
801 Thompson Avenue
Rockville, MD 20852

SUBJECT: X ENERGY, LLC – ACKNOWLEDGEMENT OF WITHDRAWAL OF REVISIONS 1 AND 2 OF “XE-100 TOPICAL REPORT: TRISO-X PEBBLE FUEL QUALIFICATION METHODOLOGY” (EPID NO. L-2021-TOP-0011)

Dear Mr. Chapman:

By letter dated April 30, 2021, X Energy, LLC (X-energy) submitted topical report (TR) XE00-R-R1ZZ-RDZZ-L, “Xe-100 Topical Report: TRISO-X Pebble Fuel Qualification Methodology,” Revision 1, (Agencywide Document Access and Management System (ADAMS) Accession No. ML21120A332) for U.S. Nuclear Regulatory Commission (NRC) staff review. This TR provided information intended to qualify the tri-structural isotropic (TRISO)-coated particle fuel pebbles to be used in the Xe-100 high-temperature gas-cooled reactor design under development by X-energy. A closed meeting was held on June 4, 2021, to provide the NRC staff with an overview of the TR (ML21354A289).

On September 2, 2021, (ML21246A289), X-energy submitted for NRC staff review XE00-R-R1ZZ-RDZZ-L, Revision 2, to supersede the previous revision with an updated figure based on the NRC staff feedback provided during the June 4, 2021, closed meeting and to provide both proprietary and non-proprietary versions of the TR.

The NRC staff reviewed the TR and issued requests for additional information (RAIs) on Revision 2 of the TR on December 2, 2022 (ML21334A233 (non-public)). Subsequently, a closed meeting was held on February 10, 2022, to clarify the RAIs. The NRC staff received RAI responses from X-energy on February 28, 2022 (ML22059A770).

A closed meeting was held on May 20, 2022, (ML22166A424) to discuss the RAI responses. Afterward, by letter dated July 29, 2022, X-energy submitted XE00-R-R1ZZ-RDZZ-L, Revision 3, (ML22216A179) for NRC staff review.

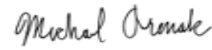
By letter dated September 21, 2022, (ML22265A218) X-energy requested withdrawal of Revisions 1 and 2 of the TR. Accordingly, the NRC staff will continue its review of Revision 3 of the TR.

T. Chapman

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If you have any questions, please contact me at (301) 415-3229 or via email at Michael.Orenak@nrc.gov.

Sincerely,



Signed by Orenak, Michael
on 02/02/23

Michael D. Orenak, Project Manager
Advanced Reactor Licensing Branch 1
Division of Advanced Reactors and Non-Power
Production and Utilization Facilities
Office of Nuclear Reactor Regulation

Project No. 99902071

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