



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

December 16, 2021

Mr. Travis Chapman
U.S. Licensing
X Energy, LLC
801 Thompson Avenue
Rockville, MD 20852

SUBJECT: X ENERGY, LLC – U.S. NUCLEAR REGULATORY COMMISSION
OBSERVATIONS REGARDING XE-100 WHITE PAPER: USE OF
BOUNDING VALUES (EPID NO. L- 2021-LRO-0055)

Dear Mr. Chapman:

On October 21, 2021, X Energy LLC (X-energy) submitted to the U.S. Nuclear Regulatory Commission (NRC) the white paper, "Use of Bounding Values" (Agencywide Documents Access and Management System (ADAMS) Accession No. ML21295A296).

X-energy requested that the NRC staff review this white paper and provide feedback regarding X-energy's approach to using bounding values in licensing. The NRC staff completed its review of the submittal. In general, regulations require that an environmental report be submitted with each Construction Permit application and that it be supplemented in each related Operating License application. On December 14, 2021, the NRC staff held a meeting with X-energy to discuss the NRC staff's observations. The enclosure to this letter provides the NRC staff's observations regarding the white paper for X-energy to consider.

The NRC staff's observations provided in the enclosure are specific to the white paper as submitted. The NRC staff encourages further pre-application engagement, especially for novel design, site features, or planned licensing approaches that differ from current operating reactors.

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If you have questions about this matter, please contact Lucieann Vechioli at (301) 415-6035 or Lucieann.VechioliFeliciano@nrc.gov, or Patricia Vokoun at (301) 415-3470 or Patricia.Vokoun@nrc.gov.

Sincerely,

William Kennedy, Acting Chief
Advanced Reactor Licensing Branch
Division of Advanced Reactors and Non-Power
Production and Utilization Facilities
Office of Nuclear Reactor Regulation

Project No.: 99902071

Enclosure:
As stated

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DATED: DECEMBER 16, 2021

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ADAMS Accession Nos.

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Letter: ML21323A162

Enclosure: ML21323A167

NRR-106

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