



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

May 26, 2022

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

Lucieann Vechioli Feliciano Signed by Vechioli, Lucieann
on 05/26/22

FROM: Lucieann Vechioli, Project Manager
Advanced Reactor Licensing Branch
Division of Advanced Reactors and Non-Power
Production and Utilization Facilities
Office of Nuclear Reactor Regulation

SUBJECT: SUMMARY OF THE MARCH 8, 2022, PUBLIC MEETING
BETWEEN THE U.S. NUCLEAR REGULATORY COMMISSION
STAFF AND X ENERGY LLC REGARDING THE XE-100
PROJECT AT WNP-1 SITE – SUBSURFACE INVESTIGATION
APPROACH

On March 8, 2022, the U.S. Nuclear Regulatory Commission (NRC) staff held a virtual open to the public meeting with representatives from X Energy LLC (X-energy) and Energy Northwest (ENW) regarding the Xe-100 Reactor Design Subsurface Investigation Approach at the former WNP-1 site. X-energy and ENW presented about this topic with the intention of identifying any NRC staff initial concerns and address them. The meeting notice can be located at Agencywide Documents Access and Management System (ADAMS) Accession No. ML22060A101 and the presentation slides at ADAMS Accession No. ML22049A036. The Enclosure provides the list of meeting attendees.

The meeting began with a discussion about the NRC regulatory requirements for subsurface investigation. Milton Gorden, X-energy, and other representatives from X-energy and ENW, presented the options that are currently available as possible paths for the Department of Energy to authorize the conduct of subsurface investigation at WNP-1. The subsurface investigation is one of the initial and critical activities to support a construction permit application.

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The discussion included the WNP-1 site geologic and hydrologic investigations historical data which could be used for the Xe-100 application. X-energy and ENW plan to supplement the historical data with onsite field studies that are currently in progress. The supporting reports will also include cultural resources review. There is supplemental site-specific data that is not yet available due to the current U. S. Department of Energy restrictions on subsurface investigation under the current site lease agreement. The supplemental studies that have been done and are in progress are being conducted under the current lease agreement terms of use.

The overall discussion outlined the numerous historical and recent evaluations from the site region and vicinity areas that X-energy plans to use to support Xe-100 construction permit application. X-energy plan for the operating license to follow the construction permit submittal and hence it will incorporate any other information that is necessary for the National Environmental Policy Act review.

At the end of the meeting the NRC staff acknowledged that X-energy's descriptions of the available data and the plan for supplemental investigation of the groundwater in the area seemed reasonable and adequate for the preapplication stage. Also, assuming the WNP-1 site is the site selected to proceed with the Xe-100 application, the NRC staff noted that the description provided in the presentation appears to include sufficient data points to support review and analysis by the NRC staff if submitted in an application for a construction permit. However, understanding the extent of monitoring requires further information because the project was formally terminated almost three decades ago (May 1994). Another issue pointed out by the NRC staff was that new and significant information would be part of the review and this may be affected as more time passes between the application submittals.

X-energy and ENW representatives acknowledged these observations, and although the ideal scenario is to limit the new and significant information, they plan to address this issue as necessary when appropriate.

Project No.99902071

Enclosure:
List of Attendees

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NAME	LVecchioli	DGreene	WKennedy	LVecchioli
DATE	5/17/2022	5/20/2022	5/25/2022	5/26/2022

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List of Attendees

Public Meeting between the U.S. Nuclear Regulatory Commission Staff and X Energy LLC

Tuesday, March 8, 2022

Name	Organization
Ian Jung	U.S. Nuclear Regulatory Commission (NRC)
William Kennedy	NRC
Hosung Ahn	NRC
Zuhan Xi	NRC
Lucieann Vechioli	NRC
Patricia Vokoun	NRC
Joseph Giacinto	NRC
Michael Orenak	NRC
Clifford Munson	NRC
Kenneth Erwin	NRC
Gerry Stirewalt	NRC
Eric Oesterle	NRC
Joseph Sebrosky	NRC
Travis Chapman	X Energy LLC (X-energy)
Milton Gorden	X-energy
Paul Ouellette	X-energy
Ingrid Nordby	X-energy
Jason Redd	X-energy
Tom Braudt	X-energy
Roy Lindengren	X-energy
Ian Davis	X-energy
Alan Campbell	X-energy
Chip Moon	X-energy
Nathan Clarke	X-energy
Maury Pressburger	X-energy
Ian Gifford	X-energy
Karen Boulware	X-energy
David Dempsey	X-energy
Peter Carusona	X-energy
Bill Elzinga	X-energy
Kathleen Goodman	X-energy
Don Gregoire	X-energy
Dave Lanier	X-energy
Stephen Moen	X-energy
Jessica Hansen	X-energy
Sandra Jannetty	X-energy
Russell Light	X-energy
Lisa Matis	X-energy
Lloyd Philpot	X-energy

Enclosure