



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

July 13, 2023

LICENSEE: ZIONSOLUTIONS, LLC

FACILITY: ZION NUCLEAR POWER STATION, UNITS 1 AND 2

SUBJECT: SUMMARY OF CLARIFICATION MEETING WITH ZIONSOLUTIONS, LLC  
REGARDING 2023 CONFIRMATORY SURVEYS FOR THE ZION NUCLEAR  
POWER STATION, UNITS 1 AND 2

TO: Shaun Anderson, Chief, Reactor Decommissioning

The U.S. Nuclear Regulatory Commission (NRC) held a clarification meeting with ZionSolutions LLC (ZS), the licensee for the Zion Nuclear Power Station, Units 1 and 2 (ZNPS), on June 13, 2023. The purpose of the meeting was to discuss the confirmatory survey criteria for surface and subsurface discrete radioactive particles (DRP) and radionuclides of concern provided to ZS on June 9.

The meeting began with introductions of the attendees followed by opening remarks. A list of attendees is provided in the attachment. Highlights of the meeting are summarized below. The NRC stated that they are planning to conduct the surface confirmatory survey the week of June 26, 2023, and the subsurface confirmatory survey the week of July 10, 2023.

At this meeting, the NRC staff provided ZS an opportunity to identify any concerns, any unintended potential consequences, or information that NRC staff might have overlooked about implementation. ZS said overall that the criteria seem fair, but had three questions, one related to the 10 DRP criteria and two related to dose assessment.

ZS wanted to know the technical and risk-informed basis for the threshold of 10 DRPs. NRC explained that the NRC staff determined based on the Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM) ([ML003761445](#)), that a minimum of 10 would be statistically significant to make a decision regarding reasonable assurance.

ZS asked the NRC to explain how the NRC intends to use the new ORISE Dose Coefficient in "Estimating Scan Minimum Detectable Activities of Discrete Radioactive Particles" Technical Report, dated October 31, 2022 ([ML22304A137](#)). NRC staff explained that it would use ten percent of the dose coefficient values, similar to what ZS specified in its DRP Survey Report (TSD 22-001, "Discrete Radioactive Particle Survey Report" ([ML22279A992](#)) which was provided in ZS revise response ([ML22089A098](#)) to request for additional information (RAI) (RAI-10) ([ML21238A067](#)) as part of the partial site release request ([ML20164A096](#)) review regarding use of dose coefficients.

ZS stated that given the amount of survey scanning by ZS in the past and the amount planned by NRC and given the fact that NRC will be removing any DRPs found, ZS requested clarification regarding what it would need to remediate if NRC determined that remediation was necessary. The NRC staff explained that it would depend on the results and whether the NRC staff could make a reasonable assurance determination regarding meeting the release criteria. The NRC staff will consider the scanning and the fact the DRPs would be identified and removed.

ZS asked NRC to explain what type of dose assessment NRC plans to perform. The NRC staff explained that they would evaluate the potential dose from each DRP, if any are found. NRC would evaluate the potential dose of the DRP if it were not removed and evaluate the Minimum Detectable Activity dose to determine the dose for DRPs that might be present but could not be detected. These actions would help NRC staff in determining whether the less likely but plausible potential dose scenario analysis would apply to help risk-inform decision-making as discussed in more detail in NUREG-1757, Volume 2, Rev. 2, Chapter 5 ([ML21299A031](#)).

During the latter half of the meeting, survey logistics were discussed with Oak Ridge Institute for Science and Education (ORISE), NRC independent contractor that will perform the confirmatory surveys, on the call. The NRC and ZS agreed to continue discussions regarding ensure logistics (instrument shipping, storage, workspace, training, etc.) needs would be met upon arrival on site.

The staff agreed to finalize the confirmatory survey criteria, without modification.

Please direct any inquiries to me at (301) 415-6822 or [Amy.Snyder@nrc.gov](mailto:Amy.Snyder@nrc.gov).

Sincerely,



Signed by Snyder, Amy  
on 07/13/23

Amy M. Snyder, Senior Project Manager  
Reactor Decommissioning Branch  
Division of Decommissioning, Uranium Recovery,  
and Waste Programs  
Office of Nuclear Material Safety  
and Safeguards

Enclosure: Attendee list

Docket Nos.: 50-295, 50-304  
License Nos.: DPR-39, DPR-4

SUMMARY OF CLARIFICATION MEETING WITH ZIONSOLUTIONS, LLC REGARDING 2023 CONFIRMATORY SURVEYS FOR THE ZION NUCLEAR POWER STATION, UNITS 1 AND 2 DATED JULY 13, 2023:

DISTRIBUTION:

Meeting Attendees  
 RidsRgn3MailCenterResource, RGNIII  
 RidsNmssOdResource, NMSS  
 RidsNmssDUWPResources, NMSS  
 Bill Lin, RIII  
 Jared Heck, RIII  
 AMoreno, OCA  
 DMclntyre, OPA  
 MLemoncelli, OGC  
 Zion Listserv

**ADAMS Accession No.: ML23180A145**

**\* via email**

OFFICE	NMSS/DUWP/RDB	NMSS/DUWP/RDB	<b>NMSS/DUWP/RTAB</b>	NMSS/DUWP/RDB*
NAME	ASnyder	SAnderson	McKenney	ASnyder
DATE	06/29/23	07/05/23	07/13/23	07/13/23

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STATION, UNITS 1 AND 2 DATED JULY 13, 2023

**ATTENDEES**

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Greg Chapman, NMSS

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Amy Snyder, NMSS

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