



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

November 5, 2019

Mr. John Sauger  
Executive Vice President  
Chief Nuclear Officer Reactor D&D  
EnergySolutions  
2701 Deborah Avenue  
Zion, IL 60099

**SUBJECT: ZION NUCLEAR POWER STATION, UNITS 1 AND 2 – ACKNOWLEDGEMENT  
OF DISCONTINUATION OF FACILITY GROUNDWATER MONITORING**

Dear Mr. Sauger:

By letter dated October 9, 2019 (Agencywide Documents Access and Management System [ADAMS] Accession No. ML19288A067), *ZionSolutions*, LLC (ZS, the licensee), requested concurrence from the U.S. Nuclear Regulatory Commission (NRC) for termination of the groundwater monitoring program at the decommissioning Zion Nuclear Power Station (ZNPS) in Zion, Illinois, one quarter after removal of the last shipment of radiological waste from the site prior to license termination. In the letter, you stated that groundwater monitoring and sampling has been ongoing throughout the decommissioning process at ZNPS, is typically performed on a quarterly basis, and the fourth quarter samples of 2019 would be the last as all waste has been shipped offsite as of the date of the request.

The NRC staff has completed a review of the licensee's summary of groundwater sample results provided in the October 9, 2019, letter and determined that the ZNPS groundwater monitoring program shows no remaining evidence of radioactive groundwater contamination. In addition, if any sample result anomalies occur between now and the final samples taken, you committed to additional sampling as agreed to with the NRC. This gives the staff confidence that the groundwater monitoring program will be adequately implemented throughout the remainder of the decommissioning process.

Based on the above discussion, the NRC staff has determined that the proposed termination of the ZNPS groundwater monitoring program after the fourth quarter 2019, sampling is acceptable, and the licensee may proceed with cancellation of the program and abandonment of the onsite and offsite monitoring wells at that time unless, as noted above, sampling anomalies occur between now and then. The Illinois Environmental Protection Agency has already determined that no further remediation is required as documented in their letter dated November 7, 2017 (ADAMS Accession No. ML19303A615).

Should you have any questions regarding this matter, please contact myself or John Hickman at (301) 415-3017 or via e-mail at [john.hickman@nrc.gov](mailto:john.hickman@nrc.gov).

Sincerely,

**//RA//**

Bruce A. Watson, CHP, Chief  
Reactor Decommissioning Branch  
Division of Decommissioning, Uranium Recovery  
and Waste Programs  
Office of Nuclear Material Safety  
and Safeguards

Docket Nos.: 50-295, 50-304 and 72-1037  
License Nos.: DPR-39 and DPR-48

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**ADAMS Accession No. ML19303C215**

**\*via email**

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