



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

June 3, 2016

Mr. John Sauger  
General Manager  
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SUBJECT: REQUEST FOR ADDITIONAL INFORMATION RELATED TO THE PROPOSED REVISION TO THE DEFUELED STATION EMERGENCY PLAN FOR ZION NUCLEAR POWER STATION, UNITS 1 AND 2 (TAC NOS. L53114 AND L53115)

Dear Mr. Sauger:

By letter dated January 7, 2016, you submitted a request for approval of the Zion Nuclear Power Station (ZNPS) Defueled Station Emergency Plan (DSEP). We have reviewed your request and have some additional information that will be needed to complete our review. The additional information requested is enclosed.

In accordance with 10 CFR 2.390 of the NRC's "Agency Rules of Practice and Procedure," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records component of NRC's ADAMS. ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>.

Should you have any questions regarding this action please contact me at 301-415-3017 or [John.Hickman@nrc.gov](mailto:John.Hickman@nrc.gov).

Sincerely,

*/RA/*

John B. Hickman, Project Manager  
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Division of Decommissioning, Uranium Recovery,  
and Waste Programs  
Office of Nuclear Material Safety  
and Safeguards

Docket Nos. 50-295 and 50-304  
License Nos. DPR-39 and DPR-48

Enclosure: Request for Additional Information

cc: w/enclosure Zion Service List

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**OFFICIAL RECORD COPY**

## Zion Nuclear Power Station, Units 1 and 2 Service List

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REQUESTS FOR ADDITIONAL INFORMATION

LICENSE AMENDMENT REQUEST

EMERGENCY PLAN CHANGE

ZION NUCLEAR POWER STATION UNITS 1 AND 2

DOCKET NOS. 50-295, 50-304 AND 72-1037

By letter dated January 7, 2016 (Agencywide Documents Access and Management System (ADAMS) Accession Number ML16008B080), ZionSolutions, LLC (ZS), is requesting an amendment to Facility Operating Licenses DPR-39 and DPR-48 for the Zion Nuclear Power Station (ZNPS) Units 1 and 2, respectively. ZS proposes to revise the ZNPS Defueled Station Emergency Plan (DSEP) to an Independent Spent Fuel Storage Installation (ISFSI) Emergency Plan. The proposed major changes include the removal of non-ISFSI related emergency event types; transfer of responsibility for include implementing the Emergency Plan to ISFSI Management, and a revised emergency plan organization.

The staff reviewed the following documents as part of the evaluation of proposed changes: NRC safety evaluation reports dated May 14, 2015 (ADAMS Accession No. ML15092A423), and July 20, 2015 (ADAMS Accession No. ML15140A563); Revision 16 to the ZNPS DSEP dated October 16, 2014 (ADAMS Accession No. ML14314A071), which is the last ZNPS DSEP revision approved by the NRC, and Revision 18 to the ZNPS DSEP dated September 15, 2015 (ADAMS Accession No. ML15292A420).

The requests for additional information (RAIs) listed below are needed to support NRC staff's continued technical review of the proposed Emergency Plan change.

**RAI-ZS-1**

Attachment 2 (Zion Station ISFSI Emergency Plan, Revision 0 DRAFT), Section 5.4, Radiological Assessment, states: "The ISS [ISFSI Shift Supervisor] will ensure an assessment of ISFSI dose rates is performed after any natural phenomena event or accident condition."

Please describe the process used to determine if the EAL threshold values for E-HU1 are reached, including: (1) a description of how the surveys are to be conducted; (2) the type and availability of survey instrument(s) to be used, and (3) how the ISS is prompted to initiate the surveys.

**RAI-ZS-2**

Attachment 2, Section 5.5.2, Decontamination Capabilities, states in part, "...contamination of individuals at the ISFSI, injured or not, is not a credible event." However, Section IV.E.3, Emergency Facilities and Equipment, to Appendix E of Title 10 of the Code of Federal Regulations (10 CFR) Part 50, requires the following, in part:

"Adequate provisions shall be made and described for emergency facilities and equipment, including:

Enclosure

- 3. Facilities and supplies at the site for decontamination of onsite individuals;

Please describe how the Zion Station ISFSI Emergency Plan meets the regulatory requirement cited above. [Note: Staff consideration for the elimination of this requirement would require the licensee's submittal of an exemption request under 10 CFR 501.12 seeking specific relief from the cited Appendix E requirement.]

### **RAI-ZS-3**

Section IV.E6 to Appendix E of 10 CFR) Part 50 requires the following, in part:

"Adequate provisions shall be made and described for emergency facilities and equipment, including:

- 6. Arrangements for transportation of contaminated injured individuals from the site to specifically identified treatment facilities outside the site boundary;

Attachment 2, Section 5.6, First Aid and Medical, states: "Both the Vista Medical Center and the City of Zion Fire and Rescue Department have personnel trained in radiation protection measures." Please clarify the extent of training for the City of Zion Fire and Rescue Department as to whether: (1) training for the City of Zion Fire and Rescue Department covers the transportation of contaminated injured individuals from the site to the Vista Medical Center, and (2) training for the Vista Medical Center addresses the treatment of radiologically contaminated injuries.

### **RAI-ZS-4**

Attachment 2, Section 5.3, Emergency Response Organization Actions, lists separate bullets for: ED [Emergency Director] deactivates Augmented ERO [emergency response organization], and ED deactivates ERO. Please clarify if these are intended to be separate actions or unintentional duplication.

### **RAI-ZS-5**

ZNPS DSEP (Revision 18), Section 7.2.2, Augmented DERO [Defueled Emergency Response Organization], states: "The Radiation Protection Director is the only member of the Augmented DERO that is on call. The remainder of the Augmented DERO will be developed by the ED using guidance and contact information provided in EPIP EO-03, Emergency Preparedness Administration."

Attachment 2, Section 7.2.2, Augmented ERO, states: "For an Emergency Classification of ALERT involving radiological consequences or at the discretion of ED, On-call support personnel can be activated."

Please describe, in the event that a declaration is made under initiating condition (IC) E-HU-1, at what time would health physics expertise be available on site to perform the follow up radiological surveys to determine the magnitude of the release and radiological conditions due to the event.

**RAI-ZS-6**

Attachment 3 (Zion ISFSI Emergency Action Level Basis Document, Revision 0 DRAFT), IC E-HU1 states, in part: "The technical specification multiple of '2 times,' which is also used in Recognition Category A, IC AU1, is used here to distinguish between non-emergency and emergency conditions." However, Recognition Category A, IC AU1, is not included in the proposed emergency action level (EAL) scheme. Please remove this statement or explain how it is applicable.

**RAI-ZS-7**

Attachment 3, IC PD-HU1, lists Emergency Action Level Threshold Values: (1 or 2 or 3). However, there are only 2 threshold values listed, neither of which are numbered. Please revise accordingly to address inconsistency.