

August 25, 2014

ZS-2014-0289

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, DC 20555-0001

Zion Nuclear Power Station, Units 1 and 2  
Facility Operating License Nos. DPR-39 and DPR-48  
NRC Docket Nos. 50-295, 50-304 and 72-1037

Subject: Request for Exemption from Certain Requirements of 10 CFR 72.212 and 72.214 for  
Dry Spent Fuel Storage Activities at the Zion Nuclear Power Station Independent  
Spent Fuel Storage Installation

In accordance with 10 CFR 72.7, Specific Exemption, ZionSolutions (ZS) is hereby requesting an exemption from certain requirements of 10 CFR 72.212(a)(2), 72.212(b)(5), 72.212(b)(11), and 72.214. These regulations require, in part, compliance with the terms and conditions of the NAC MAGNASTOR Cask System Certificate of Compliance (Reference 1) for spent fuel storage in the ISFSI at the Zion Nuclear Power Station (ZNPS) site. The requested exemption would allow ZS to deviate from the requirements in Certificate of Compliance No. 1031, Amendment 3, Appendix A, Technical Specifications and Design Features for the MAGNASTOR System, Section 5.7, Training Program. The exemption would relieve ZS from the requirements to develop training modules under the Systematic Approach to Training (SAT) that include comprehensive instructions for the operation and maintenance of the ISFSI, except for the MAGNASTOR Cask System.

ZS is not requesting any exemptions from the requirements to develop, under its SAT program, training modules for the NAC MAGNASTOR Cask System.

#### BACKGROUND

By a letter dated February 13, 1998, Commonwealth Edison (ComEd), a predecessor as licensee of ZNPS, certified to the NRC the permanent cessation of operation of ZNPS (Reference 4). Subsequently, by separate letter dated March 9, 1998, ComEd certified to the NRC that all fuel assemblies had been permanently removed from both Zion Station reactor vessels and placed in the spent fuel pool. (Reference 5).

On September 1, 2010, the NRC issued License Amendment 185 for the ZNPS Unit 1 and License Amendment 172 for the ZNPS, Unit 2 (Reference 2). These amendments implemented the May 4, 2009 NRC Order approving the License Transfer of the ZNPS from Exelon Generation Company, LLC (Exelon) to ZS. (Reference 3)

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With the docketing of these submittals, ZS is not authorized to operate the reactor or place fuel in the reactor vessel in accordance with 10 CFR 50.82. ZS built the ISFSI under the general license provision of 10 CFR 72, Subpart K. Subpart K grants a general license to holders of 10 CFR 50 licenses to construct and operate an ISFSI on a site licensed under 10 CFR 50. ZS is currently transferring all spent fuel from the spent fuel pool to the ISFSI at the ZNPS site.

## DISCUSSION

ZS requests an exemption from the requirements of Certificate of Compliance No. 1031, Amendment 3, Appendix A, Technical Specifications and Design Features for the MAGNASTOR System, Section 5.7, Training Program. Section 5.7 in Appendix A requires the following:

A training program for the MAGNASTOR system shall be developed under the general licensee's systematic approach to training (SAT). Training modules shall include comprehensive instructions for the operation and maintenance of the MAGNASTOR system and **the independent spent fuel storage installation (ISFSI).**

(Note: bolding is provided to emphasize the issue under consideration for exemption)

The ZS training program for the NAC MAGNASTOR Cask System was developed using the SAT methods. The training modules included comprehensive instructions for the operation and maintenance of the NAC MAGNASTOR Cask System. The NAC MAGNASTOR Cask System includes all of the important to safety Structures, Systems and Components (SSCs) for the ISFSI (including the concrete pad for the ISFSI). The remaining ISFSI SSCs are not important to safety as defined in 10 CFR 72.3. SSCs that are not important to safety include the heating and air conditioning systems, electrical distribution, lighting, fencing and barriers, intrusion detection and alarm systems. Application of a SAT for the training and qualification of personnel who operate systems that are not important to safety would result in additional expenses for task evaluation, lesson plan development, instruction and administration without a commensurate safety benefit. For activities associated with the operation and maintenance of ISFSI SSCs that are not important to safety, ZS will provide training/instructions in accordance with manufacturer's instructions and ZS approved procedures.

In accordance with the provisions of 10 CFR 72.7, "[t]he Commission may, upon application by an interested person or upon its own initiative, grant such exemptions from the requirements of the regulation in this part as it determines are authorized by law and will not endanger life or property or common defense and security and otherwise in the public interest."

The requested exemption, relieving ZS from the requirements to develop training modules under the SAT that will include the SSCs not important to safety, is authorized by law and within the Commission's authority.

The requested exemption does not involve any additional risk to the public health and safety. The requested exemption affects only Technical Specification administrative controls associated with training programs and training of ISFSI personnel in the operation and maintenance of SSCs not important to safety at the ISFSI.

The requested exemption does not affect any accident analysis in the NAC MAGNASTOR Cask System Final Safety Analysis Report (FSAR) or cause any release of radioactive material to the environment. The exemption request does not result in a decrease in ZS's ability to effectively safeguard the spent fuel stored at the ISFSI. Thus, this exemption would not endanger life or property or the common defense and security.

The requested exemption is in the public interest in that it will reduce cost associated with applying a more complex and labor intensive training process than required by regulation. The costs associated with these activities are paid from the decommissioning trust fund. Requiring implementation of this intensive training process would impose an economic burden on ZS and an unnecessary increase in overall project costs.

#### ENVIRONMENTAL IMPACT

The proposed action would grant an exemption from the requirements of 10 CFR 72.212(a)(2), 72.212(b)(5), 72.212(b)(11), and 72.214. The proposed action would not increase the probability or consequences of accidents. No changes are being made in the types or quantities of any radiological effluent that may be released offsite, and there is no significant increase in occupational or public radiation exposure. Therefore, there is no significant radiological environmental impact associated with the proposed action.

The proposed action does not affect non-radiological plant effluents and has no other environmental impacts. Therefore, there are no significant non-radiological impacts associated with the proposed action.

Based on the above assessment, the proposed action will not have a significant effect on the quality of the human environment.

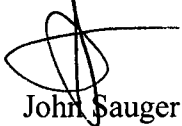
#### SUMMARY

The information provided in this submittal gives the NRC sufficient basis for granting an exemption from the requirements of 10 CFR 72.212(a)(2), 72.212(b)(5), 72.212(b)(11), and 72.214. The requested exemption would allow ZS to deviate from the requirements in the Certificate of Compliance No. 1031, Amendment 3, Appendix A, Technical Specifications and Design Features for the MAGNASTOR System, Section 5.7, Training Program. The exemption would relieve ZS from the requirements to develop training modules under the Systematic Approach to Training (SAT) that include comprehensive instructions for the operation and maintenance of the ISFSI, except for the NAC MAGNASTOR Cask System. ZS is not requesting an exemption from the requirements to develop, under its SAT program, modules for the NAC MAGNASTOR Cask System.

ZS requests the NRC approve this exemption request at your earliest convenience.  
There are no regulatory commitments contained in this submittal.

If you have any question regarding this submittal, please contact Gerard van Noordennen at  
(224) 789-4025.

Respectfully,



John Sauger  
Senior Vice President and General Manager  
ZionSolutions, LLC

cc: John Hickman, U.S. NRC Senior Project Manager  
Service List

References:

- 1) Michael Sampson, U.S. Nuclear Regulatory Commission, Letter to Anthony L. Patko, NAC International, Inc., "Certificate of Compliance No. 1031 for the NAC International, Inc., MAGNASTOR Cask System, Amendment No. 3," dated July 25, 2013
- 2) John B. Hickman, U.S. Nuclear Regulatory Commission, Letter to John A. Christian, President, ZionSolutions, LLC, "Issuance of Conforming Amendments Relating to the Transfer of Licenses for Zion Nuclear Power Station, Units 1 and 2," dated September 1, 2010
- 3) John B. Hickman, U.S. Nuclear Regulatory Commission, Letter to John A. Christian, President, ZionSolutions, LLC, "Order Approving Transfer of Licenses and Conforming Amendments Relating to Zion Nuclear Power Station, Units 1 and 2," dated May 4, 2009
- 4) O.D. Kinsley, ComEd, Letter to U.S. Nuclear Regulatory Commission, "Certification of Permanent Cessation of Plant Operations," dated February 13, 1998
- 5) O.D. Kinsley, ComEd, Letter to U.S. Nuclear Regulatory Commission, "Certification of Permanent Removal of all Fuel from the Reactor Vessels," dated March 9, 1998

## **Zion Nuclear Power Station, Unit 1 and 2 License Transfer Service List**

**cc:**

Alan Parker  
President Projects Group  
*EnergySolutions*  
1009 Commerce Park Drive, Ste. 100  
Oak Ridge, TN 37830

John Sauger  
Senior VP & General Manager  
*ZionSolutions, LLC*  
101 Shiloh Boulevard  
Zion, IL 60099

Gerard van Noordennen  
VP Regulatory Affairs  
*ZionSolutions, LLC*  
101 Shiloh Boulevard  
Zion, IL 60099

Anthony Orawiec  
Decommissioning Plant Manager  
*ZionSolutions, LLC*  
101 Shiloh Boulevard  
Zion, IL 60099

Dan Shrum  
Senior VP Regulatory Affairs  
*EnergySolutions*  
423 West 300 South, Ste. 200  
Salt Lake City, UT 84101

Russ Workman  
General Counsel  
*EnergySolutions*  
423 West 300 South, Ste. 200  
Salt Lake City, UT 84101

Alwyn C. Settles  
Section Head, Nuclear Facility Inspection  
Bureau of Nuclear Facility Safety  
Illinois Emergency Management Agency  
1011 North St., PO Box 250  
Mazon, IL 60444

Kent McKenzie  
Emergency Management Coordinator  
Lake County Emergency Management Agency  
1303 N. Milwaukee Avenue  
Libertyville, IL 60048-1308

Regional Administrator  
U.S. NRC, Region III  
2443 Warrenville Road  
Lisle, IL 60532-4352

John E. Matthews  
Morgan, Lewis & Bockius LLP  
1111 Pennsylvania Avenue, NW  
Washington, DC 20004