

June 12, 2017

ZS-2017-0066

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: Zion Nuclear Power Station, Units 1 & 2 and Independent Spent Fuel Storage  
Installation 2016 Annual Radiological Environmental Operating Report

Attached is corrected copy of Annual Radiological Environmental Operating Report (AREOR) for the period of January 2016 through December 2016. During an assessment of the 2016 AREOR, several editorial and other minor errors were noted throughout the report. None of the changes affected the conclusions from the data evaluation. Revision bars have been added to reflect changes in the report.

There are no new regulatory commitments in this submittal.

If you have any questions about this submittal please contact Mr. Christopher Keene at (224)789-4073.

Respectfully,



Gerard van Noordennen  
Vice President Regulatory Affairs

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

Attachments:

- 1) List of corrections
- 2) 2016 Annual Radiological Environmental Operating Report

NM5501  
NM5526  
NM55

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

**cc:**

Ken Robuck  
Group President Disposal and  
Decommissioning  
*EnergySolutions*  
299 South Main Street, Suite 1700  
Salt Lake City, UT 84111

John Sauger  
Executive 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*  
299 South Main Street, Suite 1700  
Salt Lake City, UT 84111

Russ Workman  
General Counsel  
*EnergySolutions*  
299 South Main Street, Suite 1700  
Salt Lake City, UT 84111

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

Kelly F. Grahn  
Senior Health Physicist, Unit Supervisor  
Bureau of Radiation Safety, Environmental  
Management  
Illinois Emergency Management Agency  
245 W Roosevelt Road, Building 8, Suite 55  
West Chicago, IL 60185

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

## Data Revision for AREOR 2016 Report

### Introduction Section

Page 4, removed Z-116, no longer used.

Page 8, changed max reading from 30 to 35 as it is stated in Appendix C-IV-2

### Appendix E → Introduction section

Page 3, data for section 1.2, updated from 2015 data to 2016 data

*“A total of 8.69e+06 liters of liquid waste containing 1.17E-02 curies of fission and activation products, 1.65E-01 curies of tritium, and 1.31E-05 Ci of Alpha was discharged from the station via an approved pathway after dilution with a total of 1.41E+09 liters of water.”*

Pages E-1.4 - E-1.5, replaced 2015 data with 2016.

Page E-1.8, added data into report that was not in the 2016 report, but was in the 2015 report.

Page E-1.9 Corrected total in 2<sup>nd</sup> table Qtr. 3, row sum from: 2.82E+01 to 2.81E+01.

Pages E-1.10 thru -E-1.13, corrected dose numbers.

Page E-1.14 corrected Unit 2 Whole Body dose number to 1.48E-02, which is equal to Unit 1.

### Appendix G

Page i, Corrected TOC page numbering.

Page 1, last paragraph was copied from body of report to summary section.

Page 2, corrected values that reflected data in tables.

Page 2, reformatted N-59 (Ni-59) to Nickel-59 (Ni-59).

Page 11, reworded paragraph for clarity.