

10 CFR 50.4(b)(1)

February 7, 2016

ZS-2018-0008

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 and 50-304

Subject: License Termination Plan Request for Additional Information

References:

- 1) Gerard van Noordennen, *ZionSolutions*, Letter to U.S. Nuclear Regulatory Commission, "License Amendment Request for the License Termination Plan", dated December 19, 2014
- 2) Gerard van Noordennen, *ZionSolutions*, Letter to U.S. Nuclear Regulatory Commission, "License Termination Plan Update of the Site-Specific Decommissioning Costs", dated February 26, 2015
- 3) John B. Hickman, U.S. Nuclear Regulatory Commission, Letter to John Sauger, *ZionSolutions*, "Request for Additional Information Related to the License Termination Plan for Zion Nuclear Power Station, Units 1 and 2," dated December 10, 2015
- 4) Gerard van Noordennen, *ZionSolutions*, Letter to U.S. Nuclear Regulatory Commission, "License Termination Plan Request for Additional Information", dated March 8, 2016
- 5) John B. Hickman, U.S. Nuclear Regulatory Commission, Letter to John Sauger, *ZionSolutions*, "Request for Additional Information Related to the License Termination Plan for Zion Nuclear Power Station, Units 1 and 2," dated May 31, 2016
- 6) Gerard van Noordennen, *ZionSolutions*, Letter to U.S. Nuclear Regulatory Commission, "License Termination Plan Request for Additional Information", dated July 20, 2016
- 7) John B. Hickman, U.S. Nuclear Regulatory Commission, Letter to John Sauger, *ZionSolutions*, "Request for Additional Information Related to the License Termination Plan for Zion Nuclear Power Station, Units 1 and 2," dated November 30, 2016
- 8) Gerard van Noordennen, *ZionSolutions*, Letter to U.S. Nuclear Regulatory Commission, "License Termination Plan Request for Additional Information", dated July 20, 2017
- 9) Gerard van Noordennen, *ZionSolutions*, Letter to U.S. Nuclear Regulatory Commission, "License Termination Plan, Revision 2", dated February 7, 2018


NMSSD1

Revision 2 of the Zion Station License Termination Plan (LTP) was submitted to the U.S Nuclear Regulatory Commission (NRC) for review on February 7, 2018 as documented in Reference 9. This letter provides additional support documentation to assist in the review of LTP, Revision 2. Note that the procedures provided in this submittal do not establish methodology used in the site restoration process. The methodology is defined in the LTP and implemented through the use of controlled documents including those contained in this submittal.

The support documents are contained in Enclosure 1. Enclosure 2 contains a preflight report for Enclosure 1.

There are no regulatory commitments made in this submittal. If you should have any questions regarding this submittal, please contact me at (860) 462-9707.

Respectfully,

Per 
Gerard van Noordennen
Vice President Regulatory Affairs

Enclosures:

Enclosure 1: Support Documentation containing:

- RAI Set 3 Revised Responses
- Response to October 10, 2017 NRC Review Comments
- TSD List
- TSD-14-022, Revision 1, Use of In-Situ Gamma Spectroscopy for FSS of End State Structures
- TSD-17-004, Revision 3, Operational Derived Concentration Guideline Levels for FSS
- TSD-17-007, Revision 1, Evaluation of Static Measurements Performed for URS of Building Material Used for Backfill at Zion
- TSD-17-010, Revision 1, Final Report-Unconditional Release Survey at Zion Station Restoration Project
- ZS-LT-02, Revision 3, Characterization Survey Plan
- ZS-LT-100-001-001, Revision 2, Characterization Survey Package Development
- ISOCS Circulating Water Discharge Tunnel Geometry
- ISOCS Circulating Water Intake Pipe Geometry

Enclosure 2: Preflight Report for Enclosure 1 to this submittal

cc: John Hickman, U.S. NRC Senior Project Manager (1 hard copy and 2 CDs of the enclosures)
Regional Administrator, U.S. NRC, Region III (1 hard copy and 1 CD of the enclosures)
Service List (Cover letter only, no enclosures)

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 & Chief Nuclear Officer
Reactor D & D
EnergySolutions
2701 Deborah Avenue
Zion, IL 60099

Bruce Hinkley
General Manager
ZionSolutions, LLC
2701 Deborah Avenue
Zion, IL 60099

Gerard van Noordennen
VP Regulatory Affairs
EnergySolutions
2701 Deborah Avenue
Zion, IL 60099

Jerry Houff
Decommissioning Plant Manager
ZionSolutions, LLC
2701 Deborah Avenue
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

Ken Evans
Section Head, Nuclear Facility Inspection
Bureau of Nuclear Facility Safety
Illinois Emergency Management Agency
1035 Outerpark Drive
Springfield, IL 62704

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

William P. Mazzerio
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

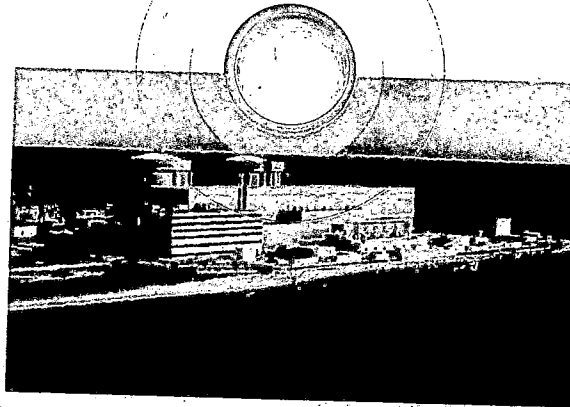
John E. Matthews
Morgan, Lewis & Bockius LLP
1111 Pennsylvania Avenue, NW
Washington, DC 20004

Enclosure 1

Support Documentation

PDF file on attached CD

**Zion Station Restoration Project
License Termination Plan
Supplemental Documentation
Revision 2
February 2018**



Enclosure 2

Preflight Report for Enclosure 1

This document serves as preflight report for Enclosure 1 to ZS-2018-0008 submittal. The following files do not pass pre-flight criteria or do not meet NRC criteria, but text is word searchable with clarity/legibility of high quality.

Reference Document Name	File Name	Preflight Status	Reason
RAI Set 3 Revised Responses	RAI Set 3 Revised Responses.pdf	Passed	
Response to October 10, 2017 NRC Review Comments	NRC LTP Reponses Letter.pdf	Passed	
TSD List	LTP TSDs and Revisions.pdf	Passed	
TSD-14-022, Revision 1, Use of In-Situ Gamma Spectroscopy for FSS of End State Structures	TSD-14-022 Rev 1_Use of In-Situ Gamma Spectroscopy for FSS of End State Structures.pdf	Failed	Document contains logos, graphs, drawings, screen shots, signatures and maps < 300 ppi, clear and legible
TSD-17-004, Revision 3, Operational Derived Concentration Guideline Levels for FSS	TSD-17-004 Rev 3_Operational Derived Concentration Guideline Levels for FSS.pdf	Failed	Document contains logos and signatures < 300 ppi, clear and legible
TSD-17-007, Revision 1, Evaluation of Static Measurements Performed for URS of Building Material Used for Backfill at Zion	TSD-17-007 Rev 1_Eval of Static Measurements Performed for URS of Bldg Material Used for Backfill at Zion.pdf	Failed	Document contains logos and signatures < 300 ppi, clear and legible
TSD-17-010, Revision1, Final Report-Unconditional Release Survey at Zion Station Restoration Project	TSD-17-010 Rev 1_Final Report - Unconditional Release Survey at Zion Station Restoration Project.pdf	Failed	Document contains logos, graphs, drawings, photos, signatures and/or maps < 300 ppi, clear and legible
ZS-LT-02, Revision 3, Characterization Survey Plan	ZS-LT-02 Rev 3_Characterization Survey Plan.pdf	Failed	Document contains logos, graphs, drawings, photos, scanned signatures and/or maps < 300 ppi, clear and legible
ZS-LT-100-001-001, Revision 2, Characterization Survey Package Development	ZS-LT-100-001-001 Rev 2_Characterization Survey Package Development.pdf	Failed	Document contains logos, graphs, drawings, photos, scanned signatures and/or maps < 300 ppi, clear and legible

Reference Document Name	File Name	Preflight Status	Reason
ISOCS Circulating Water Discharge Tunnel Geometry	Circ Water Discharge Tunnel Geometry.pdf	Failed	Document contains scanned pages < 300 ppi, clear and legible
ISOCS Circulating Water Intake Pipe Geometry	Circ Water Intake Pipe Geometry.pdf	Failed	Document contains scanned pages < 300 ppi, clear and legible