



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

May 22, 2019

Mr. John Sauger  
General Manager  
Zion Restoration Project  
ZionSolutions LLC  
101 Shiloh Blvd.  
Zion, IL 60099-2797

SUBJECT: ZION NUCLEAR POWER STATION, UNITS 1 AND 2 - REQUEST FOR  
ADDITIONAL INFORMATION RELATED TO THE STATUS OF  
DECOMMISSIONING FUNDING FOR SHUTDOWN REACTORS

Dear Mr. Sauger:

By letter dated March 26, 2019, (Agencywide Documents Access and Management System (ADAMS) Accession No. ML19092A270), Zion Solutions, LLC submitted its annual decommissioning funding status report for Zion Nuclear Power Station, Units 1 and 2 to the U.S. Nuclear Regulatory Commission (NRC).

The NRC staff has reviewed the subject submittal and determined that additional information is needed to complete its review, as described in the enclosed Request for Additional Information. These questions were discussed with your staff in a May 15, 2019, conference call. Your response is requested within 14 days after receipt of this request.

In accordance with 10 *Code of Federal Regulation* (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  
Reactor Decommissioning Branch  
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-49

Enclosure: Request for Additional Information

cc: w/enclosure Zion Service List

**SUBJECT:** ZION NUCLEAR POWER STATION, UNITS 1 AND 2 - REQUEST FOR  
ADDITIONAL INFORMATION RELATED TO THE STATUS OF  
DECOMMISSIONING FUNDING FOR SHUTDOWN REACTORS  
**DATE:** May 22, 2019

**DISTRIBUTION:**  
RDB r/f  
NNewton, NRR  
SHarwell, NRR  
ABowers, NRR  
JHickman  
BWatson

**Document Accession No ML19133A029**

<b>OFFICE</b>	NMSS	NMSS	NMSS	NMSS
<b>NAME</b>	JHickman	CHolston	BWatson	JHickman
<b>DATE</b>	5 /13 /19	5 /12 /19	5 /22 /19	5 / 22 /19

**OFFICIAL RECORD COPY**

## Zion Nuclear Power Station, Units 1 and 2 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

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

Steven A. Reynolds  
Manager, Nuclear Facility Inspection  
Division of Nuclear Safety  
Illinois Emergency Management Agency  
245 W. Roosevelt Road, Units 55 & 56  
West Chicago, IL 60185

Mayor of Zion  
Zion, IL 60099

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 Mazzeno  
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

Tom Rielly, Executive Principal  
Vista 360  
649 Innsbruck  
Libertyville, IL 60048

Director Spent Fuel & Decommissioning  
Strategy  
Exelon Generation Company, LLC  
4300 Winfield Road  
Warrenville, IL 60555

J. Bradley Fewell  
Associate General Counsel  
Exelon Corporation, LLC  
4300 Winfield Rd.  
Warrenville, IL 60555

Document Control Desk - Licensing  
Exelon Generation Company, LLC  
4300 Winfield Road  
Warrenville, IL 60555

**REQUEST FOR ADDITIONAL INFORMATION**  
**RELATED TO THE ZIONSOLUTIONS, LLC**  
**STATUS OF DECOMMISSIONING FUNDING FOR**  
**ZION NUCLEAR POWER STATION, UNITS 1 AND 2**  
**DOCKET NOS. 50-295 AND 50-304**

By letter dated March 26, 2019 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML19092A270), ZionSolutions, LLC (ZS) submitted the U.S. Nuclear Regulatory Commission (NRC) review of its report on the status of decommissioning funding for the Zion Nuclear Power Station (ZNPS), Units 1 and 2. The NRC staff has reviewed the application, and determined that additional information is necessary in order to complete its review.

**Regulatory Basis for Request**

Title 10 of the *Code of Federal Regulations* (10 CFR) 50.82(a)(8) states, in relevant part:

(v) After submitting its site-specific DCE required by paragraph (a)(4)(i) of this section, and until the licensee has completed its final radiation survey and demonstrated that residual radioactivity has been reduced to a level that permits termination of its license, the licensee must annually submit to the NRC, by March 31, a financial assurance status report. The report must include the following information, current through the end of the previous calendar year:

(A) The amount spent on decommissioning, both cumulative and over the previous calendar year, the remaining balance of any decommissioning funds, and the amount provided by other financial assurance methods being relied upon;

(B) An estimate of the costs to complete decommissioning, reflecting any difference between actual and estimated costs for work performed during the year, and the decommissioning criteria upon which the estimate is based;

(C) Any modifications occurring to a licensee's current method of providing financial assurance since the last submitted report; and

(D) Any material changes to trust agreements or financial assurance contracts.

(vi) If the sum of the balance of any remaining decommissioning funds, plus earnings on such funds calculated at not greater than a 2 percent real rate of return, together with the amount provided by other financial assurance methods being relied upon, does not cover the estimated cost to complete the decommissioning, the financial assurance status report must include additional financial assurance to cover the estimated cost of completion.

(vii) After submitting its site-specific DCE required by paragraph (a)(4)(i) of this section, the licensee must annually submit to the NRC, by March 31, a report on the status of its funding for managing irradiated fuel. The report must include the following information, current through the end of the previous calendar year:

(A) The amount of funds accumulated to cover the cost of managing the irradiated fuel;

(B) The projected cost of managing irradiated fuel until title to the fuel and possession of the fuel is transferred to the Secretary of Energy; and

(C) If the funds accumulated do not cover the projected cost, a plan to obtain additional funds to cover the cost.

### **Request for Additional Information**

In its March 26, 2019, decommissioning funding status (DFS) report, the licensee reflected a nuclear decommissioning trust (NDT) amount of -\$8.5 million (2018 dollars), as of December 31, 2018. Additionally, the licensee estimated costs to complete decommissioning, including managing irradiated fuel, to be \$6.7 million. Therefore, when considering the negative NDT balance, the licensee has a total shortfall of approximately \$15.2 million.

Referring to the NDT balance, the licensee stated, "This NDT position, together with EnergySolutions resources and the \$98 Million Letter of Credit backup for the NDT agreed with Exelon in the Zion Nuclear Power Station Unit 1 and 2 Asset Sale Agreement, **that are available but are not relied upon here** (emphasis added by NRC staff), provides for sufficient funding and financial assurance for completion of radiological decommissioning of the Zion Project."

Furthermore, as it relates to the \$4.5 million in projected costs to manage irradiated fuel, the licensee stated, "This represents the costs to complete the safe, secure operation of the ISFSI and associated infrastructure until the Zion site transitions back to Exelon Generation Company (EGC). This is planned to be on or before September 1, 2020." Additionally, the licensee stated that, "The amounts spent on decommissioning represents withdrawals made from the trust fund reported for radiological decommissioning."

Additionally, in its DFS report dated March 29, 2018 (ADAMS Accession No. ML18093A434), the licensee reflected a NDT amount of \$29.3 million (2018 dollars), as of December 31, 2017, with an estimated cost to complete decommissioning, including managing irradiated fuel, of \$24.0 million. Accordingly, at that time, the licensee projected an "End of Project Surplus" of \$5.7 million.

Based on the information provided in the report, the staff needs additional information to understand how and why the NDT reflects a negative balance, and what source(s) of funding is/are being relied upon to pay for future estimated decommissioning and spent fuel management costs. Therefore, the NRC staff is requesting the following information, to clarify the status of decommissioning funding assurance for ZNPS, Units 1 and 2, in accordance with 10 CFR 50.75(e)(1) and 10 CFR 50.82a(8)(v) - (vii).

## RAI 1

As described above, the end-of-year balance in the NDTs reported to the NRC for ZNPS, Units 1 and 2, reflects a negative balance (-\$8.5 million), which is inconsistent with the DFS report submitted in 2018 that projected an end-of-project surplus. Provide an explanation for how and why the NDT balance is negative. Should ZS continue to assert a negative NDT balance, provide a certified copy of the year-end and latest quarter NDT statement from the third-party trustee/custodian of the fund reflecting this negative position.

## RAI 2

Provide a list of expenses paid using the NDT since the last report. Explain whether any funds allocated for radiological decommissioning in 2018 were reallocated for any other purpose. If so, describe the purpose and explain why the funds were repurposed.

## RAI 3

As noted above, in your decommissioning funding status report you stated that, "This NDT position, together with EnergySolutions resources and the \$98 Million Letter of Credit backup for the NDT agreed with Exelon in the Zion Nuclear Power Station Unit 1 and 2 Asset Sale Agreement, **that are available but are not relied upon here** (emphasis added by NRC staff), provides for sufficient funding and financial assurance for completion of radiological decommissioning of the Zion Project."

Given that the reported NDT balance is negative and in light of statements in the 2019 DFS report that the \$98 Million Letter of Credit is not being relied upon, in accordance with 10 CFR 50.82(a)(8)(vi), identify the specific source(s) of funds (as allowed under 10 CFR 50.75(e)(1)), including supporting documentation (i.e., financial statement and/or letter of credit), relied upon to cover the projected estimated cost to complete decommissioning and for spent fuel management, and the negative NDT balance (as appropriate) provided in your report.