



July 30, 2025

KS-2025-014
10 CFR 50.75(f)(1)
10 CFR 50.82(a)(8)

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

Kewaunee Power Station
Facility Operating License No. DPR-43
NRC Docket Nos. 50-305 and 72-64

Subject: Decommissioning Trust Fund Annual Report, Revision 1

On March 31, 2025, Kewaunee Solutions, Inc, (KS) submitted the annual status of decommissioning funding, status of funding for managing irradiated fuel, and financial assurance report for Kewaunee Power Station (KPS) as of December 31, 2024 (Reference 4).

Subsequently, an error was identified in the report. Section F, "Current ISFSI Decommissioning Cost," states that "The current site-specific Independent Spent Fuel Storage Installation (ISFSI) decommissioning cost estimate is \$184.4M (2025 dollars, net current projections of DOE reimbursements)." Section F was revised to say, "... decommissioning cost estimate is \$18.2M..."

The References section of the report was updated to add the annual status report submitted on March 31, 2025, and the triennial ISFSI decommissioning funding plan submitted on May 22, 2025. There are no other changes in this revision.

Revision 1 of the report is attached. Revision 1 replaces Reference 4 in its entirety. The revised ISFSI decommissioning cost estimate does not change the conclusion that KPS has met the NRC's funding requirements and that no further action is currently required to demonstrate adequate funding assurance for decommissioning.

This letter contains no new regulatory commitments. If you have any questions with respect to the contents of this letter, please contact me at 508-728-1421 or jrlynch@energysolutions.com.

Respectfully,

Joseph R. Lynch
Regulatory Affairs/Licensing Director (D&D)
EnergySolutions

JRL/bed

cc: NRC Regional Administrator – Region III
NRC Lead Inspector – Kewaunee Power Station
NRC Project Manager – Kewaunee Power Station

Enclosure 1: Kewaunee Power Station Annual Decommissioning Fund Status and Financial Assurance Report as of December 31, 2024 – Revision 1

Enclosure 1

Kewaunee Power Station Annual Decommissioning Fund Status and Financial Assurance Report As of December 31, 2024

As required by 10 CFR 50.75(f), and 50.82(a)(8), Kewaunee Solutions, Inc. (KS) reports the following information for Kewaunee Power Station (KPS):

A. Formula Cost Amount per 10 CFR 50.75(c)

KS does not use the calculation in 10 CFR 50.75(c) for any decommissioning cost estimates or evaluations.

B. Current Decommissioning Cost Estimate

The required minimum funding assurance amount for KPS, as of December 31, 2024, is based on the site-specific Decommissioning Cost Estimate (DCE) developed in accordance with 10 CFR 50.82(a) and included in the Post-Shutdown Decommissioning Activities Report (PSDAR) Revision 2 (Reference 1).

Additional reporting requirements are documented on Table 1 of this Enclosure. Table 1 provides the KS revised total estimate information as required by 10 CFR 50.82. The revised total cost estimate to complete decommissioning for the KPS site is \$1,080.1M (in 2025 dollars, net of Department of Energy (DOE) reimbursements) as shown in Tables 1 and 2 and as described below. Of that total cost estimate, the revised estimate includes the following expenses:

- \$854.0M for license termination (the cumulative decommissioning expenditures in the amount of 330.0M and the remaining decommissioning estimated cost of 524.0M). The remaining decommissioning estimated cost of \$524.0M was a product of inflation to 2025 dollars, supply chain impacts, procurement cost increases, and actual contract costs versus original estimates in the PSDAR.
- \$184.4M for spent fuel management (the cumulative decommissioning expenditures in the amount of 30.1M and the remaining decommissioning estimated cost of 154.3M)
- \$41.6M for the decommissioning cost estimate for site restoration (the cumulative decommissioning expenditures in the amount of 7.1M and the remaining decommissioning estimated cost of 34.5M)

C. Current Decommissioning Fund Balance

The KPS Decommissioning Trust Fund (DTF) balance as of December 31, 2024, was \$752.4M. This amount represents the market value of the DTF fund, net of any material current income tax liability on realized gains, interest, dividends, and other income of the trust. The trust fund amount is the total available for decommissioning including costs of license termination, spent fuel management, and site restoration activities. Note that KS received exemptions from 10 CFR 50.82(a)(8)(i)(A) to allow the KPS DTF to be used for

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Kewaunee Power Station Annual Decommissioning Fund Status and Financial Assurance Report As of December 31, 2024

site irradiated fuel management and site restoration costs (References 2 and 3, respectively).

D. Assumptions Used Regarding Rates of Escalation for Decommissioning Costs, Earnings on Funds, and Other Factors Used in Funding Projections

KS has assumed a 2% real rate of return as allowed by 10 CFR 50.75(e)(1)(i).

E. Rates used to Inflate Decommissioning Costs

The estimates in the 2021 KPS Revised PSDAR (Reference 1) were provided in 2021 dollars. The estimates provided in Table 1 of this Enclosure have been inflated to 2025 dollars. The Bureau of Labor Statistics (BLS) data provided the basis for the decommissioning cost estimate inflation rate forecast. Decommissioning costs are inflated using a weighted average of BLS indices for Labor, Energy, Consumer Price Index, Materials, and Equipment. For burial inflation factor, KS utilized NUREG-1307, "Report on Waste Burial Charges: Changes in Decommissioning Waste Disposal Costs at Low-Level Waste Burial Facilities," Revision 20. KS has used a factor of 1.02125 to calculate the inflation to 2025 dollars.

F. Current ISFSI Decommissioning Cost

The current site-specific Independent Spent Fuel Storage Installation (ISFSI) decommissioning cost estimate is \$18.2M (2025 dollars, net current projections of DOE reimbursements). The ISFSI estimated costs are based on the estimated costs provided in Reference 5.

G. Decommissioning Financial Assurance

Financial assurance for decommissioning is provided by the prepayment method, coupled with an external trust fund, in accordance with 10 CFR 50.75(e)(1)(i) and 10 CFR 72.30(e)(1) as approved by NRC in their approval of the license transfer to KS.

H. Changes in the Decommissioning Funding Plan Trust Agreement

There are no changes to the Decommissioning Funding Plan Trust Agreement.

Refer to Tables 1 and 2 of this Enclosure for additional required reporting data. Table 2 provides a cash flow analysis using the revised decommissioning cost estimates developed by KS. This cash flow analysis demonstrates that the KPS decommissioning trust fund is sufficiently funded to cover costs as estimated for the license termination, spent fuel management and site restoration activities necessary to complete safe and compliant decommissioning of the site.

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Kewaunee Power Station
Annual Decommissioning Fund Status and Financial Assurance Report
As of December 31, 2024

References

1. Letter ES-2021-002 from Gerard van Noordennen, EnergySolutions to Document Control Desk, USNRC, “Notification of Amended Post-Shutdown Decommissioning Activities Report (Revision 2) for Kewaunee Power Station,” dated May 13, 2021 (ML21145A083)
2. Letter from Christopher Gratton, USNRC, to David A. Heacock, Dominion Energy Kewaunee, Inc, “Kewaunee Power Station – Exemptions from the Requirements of 10 CFR Part 50, Section 50.82(a)(8)(i)(A) and Section 50.75(h)(1)(iv) (TAC No. MF1438),” dated May 21, 2014 (ML13337A287)
3. Letter from Karl Sturzebecher, USNRC, to Amy C. Hazelhoff, EnergySolutions, “Kewaunee Power Station – Exemption to Allow Use of Funds from the Nuclear Decommissioning Trust for Site Restoration and to Remove a Notification Requirement for the Disbursal of Funds from the Decommissioning Trust (EPID No. L-2023-LLE-0008), dated January 26, 2024 (ML23339A133)
4. Letter KS-2025-005 from Joseph R. Lynch, EnergySolutions to U.S. Nuclear Regulatory Commission, “Decommissioning Trust Fund Annual Report,” dated March 31, 2025 (ML25090A215)
5. Letter KS-2025-010 from Joseph R. Lynch, EnergySolutions to U.S. Nuclear Regulatory Commission, “ISFSI 10 CFR 72.30 Decommissioning Funding Plan,” dated May 22, 2025 (ML25142A085)

ENCLOSURE 1					
Table 1					
Kewaunee Solutions, Inc – Kewaunee Power Station					
Summary Information as of December 31, 2024					
All values in Millions of Dollars					
Decommissioning Trust Fund Balance 10 CFR 50.75(f)(1) and 10 CFR 50.82(a)(8)(v)(A) / (vii)(A)					
Year	Type of Trust	Fund Balance (2024 \$)			Comments
2024	Decommissioning Trust	\$	752.4		As of 12/31/2024; net of tax liabilities on realized gains
Other Contracts or Financial Assurance Methods Being Relied Upon 10 CFR 50.75(f)(1) and 10 CFR 50.82(a)(8)(v)(B)					
None are being relied upon. Parent company support agreement and performance bond remain in place from the closing as required pursuant to Section 5.14 of the Share Purchase Agreement dated May 6, 2021.					
ES Decommissioning Expenditures 10 CFR 50.82(a)(8)(v)(A) Since License Transfer					
Year	License Termination	Spent Fuel Mgmt	Site Restoration	Total	Comments
2022 - 2023	\$ 149.6	\$ 19.7	0.0	\$ 169.3	2022-2023 costs in as-spent dollars
2024	\$ 180.4	\$ 10.4	7.1	\$ 198.0	2024 costs in as-spent dollars
Total to Date	\$ 330.0	\$ 30.1	7.1	\$ 367.3	As-Spent Dollars
Prior Year Expenditures Variance to Total ES Estimated Cost 10 CFR 50.82(a)(8)(v)(B)					
Year	License Termination	Spent Fuel Mgmt	Site Restoration	Total	Comments
2024 Est.	\$ 132.1	\$ 11.4	\$ 10.0	\$ 153.5	Estimate in 2024 Dollars
2024 Actuals	\$ 180.4	\$ 10.4	7.1	\$ 198.0	Inflation and cost escalation continues to remain higher than originally anticipated. Work continued to be accelerated into 2024 including completing the removal and disposal of major large components, starting aux building interior abatement and surgical demolition, sampling and processing of various site spoils piles and sampling and surveying various land areas outside the controlled area.
Remaining Decommissioning Estimated Cost 10 CFR 50.82(a)(8)(v)(B)-(vii)(8)					
Year	License Termination	Spent Fuel Mgmt	Site Restoration	Total	Comments
2024	\$ 524.0	\$ 154.3	\$ 34.5	\$ 712.8	Estimate in 2025 Dollars. Columns may not add due to rounding.
Spent Fuel Mgmt net of DOE reimbursements.					
Decommissioning Criteria Upon Which the Estimate is Based 10 CFR 50.75(f)(1) and 10 CFR 50.82(a)(8)(v)(8)					
DECON					
Any Modification to Method of Providing Financial Assurance 10 CFR 50.75(f)(1) and 10 CFR 50.82(a)(8)(v)(C)					
No modification to method of providing financial assurance.					
Any Material Changes to Trust Agreement Since Previous Report 10 CFR 50.75(f)(1) and 10 CFR 50.82(a)(8)(v)(D)					
No material changes to trust agreement since previous report.					
Need for Additional Financial Assurance 10 CFR 50.75(f)(1) and 10 CFR 50.82(a)(8)(v)(C) / (vii)(C)					
No need for additional financial assurance.					

ENCLOSURE 1
Table 2
Kewaunee Power Station – DECON Method
Annual Cash Flow in Millions (2025 Dollars)

Year	License Termination Cost	Spent Fuel Management Cost(5)	Site Restoration Cost	Total Costs	Beginning of Year NDT Balance	Withdrawals(4)	NDT Earnings(1)	Year Ending NDT Balance(2)(3)
2025	109.7	10.8	7.9	128.4	752.4	(151.0)	13.5	614.9
2026	116.4	10.7	3.4	130.5	614.9	(154.0)	10.8	471.6
2027	113.8	10.7	4.0	128.5	471.6	(152.4)	7.9	327.2
2028	80.9	10.8	4.6	96.4	327.2	(108.4)	5.5	224.3
2029	68.1	10.9	5.3	84.3	224.3	(84.3)	3.6	143.6
2030	34.2	6.1	7.3	47.5	143.6	(47.5)	2.4	98.5
2031	1.0	6.1	2.1	9.2	98.5	(9.2)	1.9	91.1
2032	0.0	6.2	0.0	6.2	91.1	(6.2)	1.8	86.6
2033	0.0	6.2	0.0	6.2	86.6	(6.2)	1.7	82.1
2034	0.0	6.2	0.0	6.2	82.1	(6.2)	1.6	77.4
2035	0.0	6.2	0.0	6.2	77.4	(6.2)	1.5	72.7
2036	0.0	6.2	0.0	6.2	72.7	(6.2)	1.4	67.9
2037	0.0	6.2	0.0	6.2	67.9	(6.2)	1.3	62.9
2038	0.0	6.2	0.0	6.2	62.9	(6.2)	1.2	57.9
2039	0.0	6.2	0.0	6.2	57.9	(6.2)	1.1	52.8
2040	0.0	6.2	0.0	6.2	52.8	(6.2)	1.0	47.5
2041	0.0	6.2	0.0	6.2	47.5	(6.2)	0.9	42.2
2042	0.0	6.2	0.0	6.2	42.2	(6.2)	0.8	36.8
2043	0.0	6.2	0.0	6.2	36.8	(6.2)	0.7	31.2
2044	0.0	6.2	0.0	6.2	31.2	(6.2)	0.6	25.5
2045	0.0	3.2	0.0	3.2	25.5	(3.2)	0.5	22.8
2046	0.0	0.3	0.0	0.3	22.8	(0.3)	0.5	23.0
2047	0.0	0.3	0.0	0.3	23.0	(0.3)	0.5	23.2
2048	0.0	0.3	0.0	0.3	23.2	(0.3)	0.5	23.4
2049	0.0	0.3	0.0	0.3	23.4	(0.3)	0.5	23.6
2050	0.0	3.6	0.0	3.6	23.6	(3.6)	0.4	20.4
2051	0.0	3.9	0.0	3.9	20.4	(3.9)	0.4	16.9
2052	0.0	4.5	0.0	4.5	16.9	(4.5)	0.3	12.7
2053	0.0	1.8	0.0	1.8	12.7	(1.8)	0.2	11.1
2054	0.0	(4.0)	0.0	(4.0)	11.1	4.0	0.3	15.4
2055	0.0	(6.9)	0.0	(6.9)	15.4	6.9	0.4	22.7
Total	524.0	154.3	34.5	712.8		(794.9)	65.2	

1 NDT earnings reflect an assumed 2% Real Rate of Return (RRR) Net of Taxes on realized gains

2 2025 Beginning of Year NDT Balance is net of realized tax liabilities

3 Columns may not add due to rounding

4 Withdrawals includes estimated payments for taxes on unrealized gains and any estimated deposits into the NDT fund

5 Spent Fuel Management Costs from 2045 to 2055 are, in part, reflective of DOE reimbursements. The negative years include DOE reimbursements in excess of spend due to timing of reimbursements.