



December 14, 2021

ATTN: Document Control Desk
Director, Division of Spent Fuel Management
Office of Nuclear Material Safety and Safeguards
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555-0001

Serial No.: 21-357
NRA/ENC: R0
Docket No.: 72-64

DOMINION ENERGY KEWAUNEE, INC. (DEK)
KEWAUNEE POWER STATION ISFSI
10 CFR 72.30 DECOMMISSIONING FUNDING PLAN

Pursuant to 10 CFR 72.30(b) and (c), Dominion Energy Kewaunee, Inc. (DEK) submits the attached decommissioning funding plan for the Kewaunee Power Station Independent Spent Fuel Storage Installation (ISFSI).

Please contact Erica N. Combs at (804) 273-3386 if you have any questions or require additional information.

Sincerely,

A handwritten signature in black ink, appearing to read "Mark D. Sartain", followed by a horizontal line.

Mark. D. Sartain

Vice President – Nuclear Engineering and Fleet Support
Dominion Energy Kewaunee, Inc.

Attachment: Decommissioning Funding Plan for Kewaunee Power Station ISFSI

Commitments made in this letter: None

cc: Mr. Christian Jacobs
U. S. Nuclear Regulatory Commission
Mail Stop 4B72
11545 Rockville Pike
Two White Flint North
Rockville, Maryland 20852-2738

ATTACHMENT

Decommissioning Funding Plan for
Kewaunee Power Station ISFSI

Decommissioning Funding Plan for Kewaunee Power Station ISFSI

General License under 10 CFR 72.210, Docket No. 72-64

Pursuant to 10 CFR 72.30(b), Dominion Energy Kewaunee, Inc. (DEK) submitted a decommissioning funding plan for the Kewaunee Power Station (KPS) Independent Spent Fuel Storage Installation (ISFSI) on December 17, 2018 (ADAMS Accession No. ML18361A576). 10 CFR 72.30(c) requires each holder of a license under Part 72 to resubmit the decommissioning funding plan at the time of license renewal and at intervals not to exceed three (3) years with adjustments as necessary to account for changes in costs and the extent of contamination. In accordance with 10 CFR 72.30(c), the information below provides DEK's periodic update to the KPS ISFSI's decommissioning funding plan.

Pursuant to 10 CFR 72.30(b), a decommissioning funding plan must contain:

(1) Information on how reasonable assurance will be provided that funds will be available to decommission the ISFSI or MRS [Monitored Retrievable Storage Installation].

DEK provides financial assurance for the decommissioning of KPS through the prepayment method. The NRC issued an exemption on May 21, 2014 (ADAMS Accession No. ML13337A287), allowing DEK to use funds in the KPS decommissioning trust for irradiated fuel management based on a cash flow analysis demonstrating that the trust contains sufficient funds to complete the site-specific cost of radiological decommissioning and spent fuel management. The ISFSI decommissioning costs are included in spent fuel management in the analysis submitted with DEK's most recent Decommissioning Funding Status Report on March 25, 2021 (ADAMS Accession No. ML21084A800). The Decommissioning Funding Status Report demonstrates that the KPS Trust continues to contain sufficient funds to complete radiological decommissioning and spent fuel management, including ISFSI decommissioning, as well as the subsequent funding of site restoration, with a projected residual amount of \$303 million (discounted to 2021 dollars).

- (2) A detailed cost estimate for decommissioning, in an amount reflecting:**
- (i) The cost of an independent contractor to perform all decommissioning activities;**
 - (ii) An adequate contingency factor; and**
 - (iii) The cost of meeting the §20.1402 of this chapter criteria for unrestricted use, provided that, if the applicant or licensee can demonstrate its ability to meet the provisions of §20.1403 of this chapter, the cost estimate may be based on meeting §20.1403 criteria.**

General Methodology Used to Develop ISFSI Decommissioning Cost Estimates

A site-specific ISFSI DCE based on 10 CFR 72.30 requirements was prepared for the KPS ISFSI in 2018. The ISFSI DCE was based on the assumption that a third-party contractor would perform decommissioning. To determine the cost of using a third-party contractor, fully burdened labor rates (labor costs plus employee benefits and taxes) were used as a basis and a premium was added to represent a third-party contractor's profit margin.

The site-specific ISFSI DCE includes undistributed costs for support activities allocated to the ISFSI decommissioning period. The site-specific ISFSI DCE includes 25% contingency consistent with NUREG-1757, "Consolidated Decommissioning Guidance," Volume 3, Revision 1.

The site-specific ISFSI DCE is based on remediating the site to a residual radioactivity level consistent with 10 CFR 20.1402 (i.e., unrestricted use). As shown in Table 1, the estimated cost to decommission the ISFSI at KPS is \$2.118 million in 2021 dollars (100% decommissioning responsibility).

Table 1. KPS Site-Specific Cost Estimates Applicable to ISFSI Decommissioning Costs – 10 CFR 72.30 (*in thousands of dollars*)

ISFSI Decommissioning Activity Description	Labor	Equipment	Disposal	Other	25% Contingency	Total (2018 \$)	Total (2021 \$)
Distributed (Direct) Cost							
Preparation and NRC Review of License Termination Plan	\$ 196	\$ -	\$ -	\$ 126	\$ 81	\$ 403	\$ 422
Verification Survey of Horizontal Storage Modules	\$ 67	\$ 26	\$ -	\$ 13	\$ 27	\$ 133	\$ 139
Preparation of Final Report on Decommissioning and NRC Review	\$ 112	\$ -	\$ -	\$ 165	\$ 69	\$ 346	\$ 363
Total Distributed (Direct) Cost	\$ 375	\$ 26	\$ -	\$ 304	\$ 177	\$ 882	\$ 924
Total Undistributed (Allocated) Cost	\$ 911	\$ -	\$ -	\$ -	\$ 228	\$ 1,139	\$ 1,194
Total KPS ISFSI Decommissioning Cost	\$ 1,286	\$ 26	\$ -	\$ 304	\$ 405	\$ 2,021	\$ 2,118
Annual Escalation Rate (2018\$ to 2021\$)	2.39%	Escalation Rate based on average of CPI-U indices for period shown					
Decommissioning Cost shown at	100.00%	DEK Decommissioning responsibility percentage					

Information required by 10 CFR 72.30(c)

10 CFR 72.30(c) requires an updated decommissioning funding plan to specifically consider the effect of the following events on decommissioning costs:

- (1) *Spills of radioactive material producing additional residual radioactivity in onsite subsurface material.*

There have been no reported spills at the ISFSI.

- (2) *Facilities modifications.*

There have been no facility modifications affecting the ISFSI DCE.

- (3) *Changes in authorized possession limits.*

As stated below, the ISFSI DCE is based on an ISFSI that is sized to accommodate the spent fuel generated through permanent cessation of operations, which occurred in May 2013.

- (4) *Actual remediation costs that exceed the previous cost estimate.*

No actual remediation costs have been incurred.

(3) Identification of and justification for using key assumptions contained in the DCE.

The DCEs for the KPS ISFSIs assumes:

- (i) An ISFSI that is sized to accommodate the spent fuel generated through permanent cessation of operations, which occurred in May 2013.
- (ii) Decommissioning will be performed by an independent contractor.
- (iii) Storage canisters will be used to ship the contained spent fuel to the Department of Energy.
- (iv) A dry transfer facility will not be necessary.
- (v) The ISFSI pads and support modules are assumed to be free of contamination and left in place.

- (4) A description of the method of assuring funds for decommissioning from paragraph (e) of this section, including means for adjusting cost estimates and associated funding levels periodically over the life of the facility.**

DEK is providing financial assurance for decommissioning the site and ISFSI through the prepayment method. Cash flow analysis demonstrates that the prepaid funds in the trust are sufficient to cover the costs of radiological decommissioning and spent fuel management, which includes ISFSI decommissioning costs. The KPS decommissioning cost study and the ISFSI DCE are updated approximately every five (5) years. The ISFSI decommissioning funding plan periodically submitted pursuant to 10 CFR 72.30(c) will further adjust the most recent site-specific ISFSI DCE using a CPI indice based escalation rate and will consider the need for any further adjustment based on the factors in 10 CFR 72.30(c)(1) – (4).

- (5) The volume of onsite subsurface material containing residual radioactivity that will require remediation to meet the criteria for license termination.**

Onsite subsurface material is assumed to have no residual radioactivity that will require remediation to meet the criteria for license termination. The spent fuel storage casks are sealed and contain no liquid.

- (6) A certification that financial assurance for decommissioning has been provided in the amount of the cost estimate for decommissioning.**

DEK certifies that financial assurance for the estimated cost of decommissioning the KPS ISFSI has been provided as discussed above.