



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

July 27, 2023

R. Keith Brown, Regulatory
Affairs Director
Southern Nuclear Operating Company
3535 Colonnade Parkway
Birmingham, AL 35243

SUBJECT: THE U.S. NUCLEAR REGULATORY COMMISSION'S ANALYSIS OF
SOUTHERN NUCLEAR OPERATING COMPANY'S 2017, 2020, AND 2023
UPDATED DECOMMISSIONING FUNDING PLANS FOR EDWARD I. HATCH
NUCLEAR PLANT, VOGTLE ELECTRIC GENERATING PLANT, AND JOSEPH
M. FARLEY NUCLEAR PLANT INDEPENDENT SPENT FUEL STORAGE
INSTALLATIONS

Dear R. Keith Brown:

By letters dated March 30, 2017 (Agencywide Documents Access and Management System [ADAMS] Accession No. ML17089A520), March 31, 2020 (ML20091K821), and March 29, 2023 (ML23088A173), Southern Nuclear Operating Company (SNC) submitted decommissioning funding plans (DFPs) for the Edward I. Hatch Nuclear Plant, Units 1 and 2, (Hatch) Independent Spent Fuel Storage Installation (ISFSI) located in Baxley, Georgia; Vogtle Electric Generating Plant, Units 1 and 2, (Vogtle) ISFSI, located in Waynesboro, Georgia; and Joseph M. Farley Nuclear Plant, Units 1 and 2, (Farley) ISFSI located in Columbia, Alabama; for the U.S. Nuclear Regulatory Commission (NRC) staff review and approval.

Previously, by letter dated March 31, 2014 (ML14091A008), SNC submitted the initial DFP for the ISFSIs at Hatch, Vogtle, and Farley, for the NRC's review and approval. The NRC staff reviewed the initial DFP submittal for Hatch, Vogtle, and Farley ISFSIs and documented its findings in a letter dated May 20, 2021 (ML21089A241). In support of its approval of the initial 2014 DFP, the NRC issued an environmental assessment and its associated finding of no significant impact on May 10, 2021 (ML21089A221), which was published in the *Federal Register* (FR) on May 20, 2021 (86 FR 27485).

Pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR), Section 72.30(b), each holder of, or applicant for, a license under 10 CFR Part 72 must submit for NRC review and approval a DFP containing information on how reasonable assurance will be provided that funds will be available to decommission its ISFSIs. The DFP must contain a detailed decommissioning cost estimate (DCE) in an amount reflecting: (1) the cost of an independent contractor to perform all decommissioning activities, (2) an adequate contingency factor, and (3) the cost of meeting the 10 CFR 20.1402 unrestricted use criteria (or the cost of meeting the 10 CFR 20.1403 restricted use criteria, provided the licensee can demonstrate its ability to meet these criteria). The licensee's DFP must also identify and justify using the key assumptions contained in the DCE. Further, the DFP must describe the method of assuring funds for ISFSI decommissioning, including means for adjusting cost estimates and associated funding levels periodically over the life of the ISFSI. Additionally, the DFP must specify the volume of onsite subsurface material

containing residual radioactivity that will require remediation to meet the criteria for license termination and contain a certification that financial assurance for ISFSI decommissioning has been provided in the amount of the DCE.

Pursuant to 10 CFR 72.30(c), at the time of license renewal and at intervals not to exceed 3 years, the initial DFP required to be submitted by 10 CFR 72.30(b) must be resubmitted with adjustments as necessary to account for changes in costs and the extent of contamination in an updated DFP. The updated DFP must update the information submitted with the original or prior approved plan. In addition, the updated DFP must also specifically consider the effect of the following events on decommissioning costs, as required by 10 CFR 72.30(c)(1)-(4): (1) spills of radioactive material producing additional residual radioactivity in onsite subsurface material, (2) facility modifications, (3) changes in authorized possession limits, and (4) actual remediation costs that exceed the previous cost estimate.

In accordance with 10 CFR 72.30(c), and using NUREG-1757, Vol. 3, Rev. 1, "Consolidated Decommissioning Guidance," dated February 2012, the NRC staff reviewed the following updated DFPs submitted by SNC, including the updated DCEs and the method of assuring funds for decommissioning.

2017 Updated DFP

In its 2017 Updated DFP, SNC estimated that the total cost to decommission the ISFSIs at Hatch, Vogtle, and Farley is \$6,252,000, \$5,545,00, and \$5,297,000, respectively, for unrestricted use, in 2015 dollars.

SNC's 2017 updated DCEs provided narratives on each of the requirements of 10 CFR 72.30(c)(1)-(4). In particular, the licensee explained that there were no changes in the factors listed in 10 CFR 72.30(c)(1)-(4) as discussed in its supplemental information dated April 1, 2018 (ML18101B268). Based on its review of SNC's 2017 submittal, the NRC staff finds that the updated DCEs: are based on reasonable costs of a third-party contractor; include an adequate contingency factor; reflect the cost of meeting the 10 CFR 20.1402 criteria for unrestricted use; and are based on reasonable and documented assumptions. Therefore, the NRC staff finds that the 2017 updated DCEs adequately estimate the cost, at this time, to carry out required ISFSI decommissioning activities prior to license termination, and that the updated DCEs are acceptable.

In the 2017 updated DFP, SNC relied on an external sinking fund as financial assurance for ISFSI decommissioning, a method authorized by 10 CFR 50.75(e) and 10 CFR 72.30(e), for Hatch, Vogtle, and Farley. The NRC staff reviewed the licensee's 2017 updated DFPs and finds that the aggregate dollar amount of the licensee's financial instruments provides adequate financial assurance to cover its cost estimates. Therefore, the NRC staff finds that these financial instruments are acceptable.

2020 Updated DFP

In its 2020 Updated DFP, SNC estimated that the total cost to decommission the ISFSIs at Hatch, Vogtle, and Farley is \$17,191,000, \$14,948,00, and \$11,156,000, respectively, for unrestricted use, in 2018 dollars.

SNC's 2020 DCEs provided narratives on each of the requirements of 10 CFR 72.30(c)(1)-(4). Specifically, the licensee explained that there were no changes in the factors listed in 10 CFR

72.30(c)(1)-(4). Based on its review of SNC's 2020 submittal, the NRC staff finds that the updated DCEs: are based on reasonable costs of a third-party contractor; include an adequate contingency factor; reflect the cost of meeting the 10 CFR 20.1402 criteria for unrestricted use; and are based on reasonable and documented assumptions. Therefore, the NRC staff finds that the 2020 updated DCEs adequately estimate the cost, at this time, to carry out required ISFSI decommissioning activities prior to license termination, and that the updated DCEs are acceptable.

In the 2020, updated DFP SNC relied on an external sinking fund as financial assurance for ISFSI decommissioning, a method authorized by 10 CFR 50.75(e) and 10 CFR 72.30(e) for Hatch, Vogtle, and Farley. The NRC staff reviewed the licensee's 2020 updated DFPs and finds that the aggregate dollar amount of the licensee's financial instruments provide adequate financial assurance to cover its cost estimates. Therefore, the NRC staff finds that these financial instruments are acceptable.

2023 Updated DFP

In its 2023 Updated DFP, SNC estimated that the total cost to decommission the ISFSIs at Hatch, Vogtle, and Farley is \$20,453,000, \$17,827,000, and \$12,607,000, respectively, for unrestricted use, in 2022 dollars.

SNC's 2023 DCEs provided narratives on each of the requirements of 10 CFR 72.30(c)(1)-(4). Specifically, the licensee explained that there were no changes in the factors listed in 10 CFR 72.30(c)(1)-(4). Based on its review of SNC's 2023 submittal, the NRC staff finds that the updated DCEs: are based on reasonable costs of a third-party contractor; include an adequate contingency factor; reflect the cost of meeting the 10 CFR 20.1402 criteria for unrestricted use; and are based on reasonable and documented assumptions. Therefore, the NRC staff finds that the 2023 updated DCEs adequately estimate the cost, at this time, to carry out required ISFSI decommissioning activities prior to license termination, and that the updated DCEs are acceptable.

In the 2023 updated DFP SNC relied on an external sinking fund as financial assurance for ISFSI decommissioning, a method authorized by 10 CFR 50.75(e) and 10 CFR 72.30(e) for Hatch, Vogtle, and Farley. The NRC staff reviewed the licensee's 2023 updated DFPs and finds that the aggregate dollar amount of the licensee's financial instruments provide adequate financial assurance to cover its cost estimates. Therefore, the NRC staff finds that these financial instruments are acceptable.

Conclusion

Based on its review of the above SNC's submittals, the NRC staff finds that the updated DCEs for 2017, 2020, and 2023: (1) are based on reasonable costs of a third-party contractor, (2) include an adequate contingency factor, (3) reflect the cost of meeting the 10 CFR 20.1402 criteria for unrestricted use, and (4) are based on reasonable and documented assumptions. Therefore, the NRC staff finds that the updated DCEs adequately estimate the cost, at this time, to carry out required ISFSI decommissioning activities prior to license termination, and that the updated DCEs are acceptable.

The NRC staff reviewed SNC's 2017, 2020, 2023 updated DFP submissions, including the updated DCEs and the method of assuring funds for decommissioning, in accordance with 10 CFR 72.30(c) and NUREG-1757, Vol. 3, Rev. 1, "Consolidated Decommissioning Guidance."

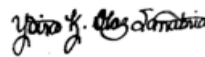
Based on its review, the NRC staff finds that the updated DFPs contain the information required by 10 CFR 72.30(c) and that SNC's has provided reasonable assurance by which funds will be available to decommission the SNC's ISFSIs. Therefore, the NRC staff finds that the DCEs adequately estimated the cost, at this time, to carry out required ISFSI decommissioning activities prior to license termination, and that the DCEs are reasonable.

In addition to the NRC staff's review of the above updated DFPs, the NRC staff completed an environmental review. The NRC staff published a summary of the results of the environmental review in the *Federal Register* (88 FR 48268) on July 26, 2023, for the SNC's ISFSIs. The environmental assessment and findings of no significant impact for SNC's ISFSIs is available in <https://www.regulations.gov> under the Docket ID: NRC-2023-0123. The NRC staff determined that there was no environmental impact from the NRC staff's review and approval of SNC's updated DFPs.

In accordance with 10 CFR 2.390, "Public inspections, exemptions, requests for withholding," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room (PDR) or from the Publicly Available Records component of the NRC's ADAMS. ADAMS is accessible from the NRC website at <http://www.nrc.gov/reading-rm/adams.html>.

If you have any questions regarding this matter, please contact me at (301) 415-8064 or via email at yaira.diaz-sanabria@nrc.gov.

Sincerely,



Signed by Diaz-Sanabria, Yaira
on 07/27/23

Yaira K. Diaz-Sanabria, Chief
Storage and Transportation Licensing Branch
Division of Fuel Management
Office of Nuclear Material Safety
and Safeguards

Docket Nos.: 72-42, 72-36, and 72-1039
License Nos.: SFGL-25, SFGL-09, and SFGL-59
EPID Nos: L-2017-FPR-0024,
L-2017-FPR-0032, and L-2017-FPR-0072

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