



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

May 20, 2021

Mary J. Fisher
Vice President, Energy Production
and Nuclear Decommissioning
Omaha Public Power District
444 South 16th Street Mall
Omaha, NE 68102-2247

SUBJECT: U.S. NUCLEAR REGULATORY COMMISSION ANALYSIS OF OMAHA PUBLIC POWER DISTRICT'S INITIAL AND UPDATED DECOMMISSIONING FUNDING PLANS FOR THE FORT CALHOUN INDEPENDENT SPENT FUEL STORAGE INSTALLATION

Dear Ms. Fisher:

By letter dated March 6, 2013, Omaha Public Power District (OPPD) submitted, for U.S. Nuclear Regulatory Commission (NRC) staff review and approval, an initial decommissioning funding plan (DFP) for the independent spent fuel storage installation (ISFSI) at Fort Calhoun Station, Unit 1 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML13067A319).

By letter dated March 31, 2015, OPPD submitted, for NRC staff review and approval, an updated decommissioning fund plan (updated DFP) for the ISFSI at Fort Calhoun (ADAMS Accession No. ML15090A763).

In accordance with Title 10 of the *Code of Federal Regulations* (10 CFR), Sections 72.30(b) and (c), and using NUREG-1757, Vol. 3, Rev. 1, "Consolidated Decommissioning Guidance," the NRC staff reviewed the OPPD's initial and updated DFPs, including the initial and updated decommissioning cost estimates (DCEs) and the method of assuring funds for decommissioning.

Pursuant to 10 CFR 72.30(b), each holder of, or applicant for, a license under 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 ISFSI. The DFP must contain a detailed 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.

The NRC staff reviewed and analyzed the information submitted by OPPD on how reasonable assurance will be provided that funds will be available to decommission the ISFSI, including the amount of the DCE and the method of assuring funds for decommissioning.

In its 2013 initial DFP, OPPD estimated the total cost to decommission the ISFSI for unrestricted use, in 2012 dollars. The DCE provided for Fort Calhoun was \$6,738,000.

Based on its analysis of OPPD's submittals, the staff finds that the DCE submitted for 2013: (1) is based on reasonable costs of a third party contractor; (2) includes an adequate contingency factor; (3) reflect the cost of meeting the 10 CFR 20.1402 criteria for unrestricted use;¹ and (4) is based on reasonable and documented assumptions. Therefore, the NRC finds that the 2013 DCE adequately estimates the cost to carry out required ISFSI decommissioning activities prior to license termination, and that the 2013 DCE is acceptable.

In the initial DFP, OPPD relied on an external sinking fund for Fort Calhoun Station, Unit 1 as financial assurance for ISFSI decommissioning, a method authorized by 10 CFR 50.75(e)(1)(ii)(A) which is allowed under 10 CFR 72.30(e)(5). This is allowed because the Fort Calhoun ISFSI belongs to a licensee with a power reactor license under part 50. The NRC staff finds that the aggregate dollar amount of the licensee's financial instrument provides adequate financial assurance to cover its cost estimate, and therefore, that this financial instrument is acceptable.

Based on its financial analyses, the NRC staff finds that the initial DFPs contain the information required by 10 CFR 72.30(b) and that OPPD has provided reasonable assurance that funds will be available to decommission the ISFSI at Fort Calhoun.

Pursuant to 10 CFR 72.30(c), at the time of license renewal and at intervals not to exceed 3 years, the decommissioning funding plan (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 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 its 2015 updated DFP, OPPD provided estimates of the total cost to decommission the ISFSI for unrestricted use, in 2014 dollars. OPPD estimated that the total cost to decommission the ISFSI at Fort Calhoun is \$3,142,000 million.

Specifically, the licensee explained there were no changes in any of the factors listed in 10 CFR 72.30(c)(1)-(4). Based on its review of OPPD's 2015 submittal and its March 29, 2018 RAI response (ADAMS Accession No. ML18088B378), the NRC staff finds that the updated DCE: is based on reasonable costs of a third party contractor; includes an adequate contingency factor;

¹ Under 10 CFR 72.30(b)(2)(iii), licensees may address either the 10 CFR 20.1402 or 10 CFR 20.1403 criteria. The staff understands the licensee based its cost estimates on the 10 CFR 20.1402 criteria for unrestricted use because it did not address the requirements of 10 CFR 20.1403.

reflect the cost of meeting the 10 CFR 20.1402 criteria for unrestricted use;² and is based on reasonable and documented assumptions. Therefore, the NRC staff finds that the 2015 updated DCE adequately estimates the cost, at this time, to carry out required ISFSI decommissioning activities prior to license termination, and that the DCE is reasonable.

In the updated DFP for the Fort Calhoun ISFSI, OPPD relied on an external sinking fund as financial assurance for ISFSI decommissioning, a method authorized by 10 CFR 50.75(e)(1)(ii)(A) which is allowed under 10 CFR 72.30(e)(5). This is allowed because the Fort Calhoun ISFSI belongs to a licensee with a power reactor license under part 50. The NRC staff reviewed the licensee's updated DFP and finds that the aggregate dollar amount of the licensee's financial instrument provides adequate financial assurance to cover its cost estimate. Therefore, the NRC staff finds this financial instrument is acceptable.

The NRC staff reviewed OPPD's updated DFP submission, including the updated DCE 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 DFP contains the information required by 10 CFR 72.30(c). The NRC staff finds that OPPD provided reasonable assurance that funds will be available to decommission the ISFSI at Fort Calhoun.

In addition to the NRC staff's analyses of OPPD's initial and updated DFPs, the NRC staff completed an environmental review. The NRC staff published a summary of the results of the environmental reviews in the *Federal Register* in May 2021 for the ISFSI at Fort Calhoun. The environmental assessment and finding of no significant impact for the ISFSI is available in <https://www.regulations.gov> under the Docket ID: NRC-2021-0093. The NRC staff determined there were no environmental impacts from the NRC staff's review and approval of OPPD's initial and updated DFP.

If you have any questions regarding this matter, please contact me at (301) 415-5722 or John.McKirgan@nrc.gov

Sincerely,

John B. McKirgan, Chief
Storage and Transportation Licensing Branch
Division of Fuel Management
Office of Nuclear Material Safety
and Safeguards

Docket No.: 72-54
License No.: SFGL-28
CAC No.: 001028
EPID No.: L-2017-FPR-0027

² Under 10 CFR 72.30(b)(2)(iii), licensees may address either the 10 CFR 20.1402 or 10 CFR 20.1403 criteria. The staff understands the licensee based its cost estimates on the 10 CFR 20.1402 criteria for unrestricted use because it did not address the requirements of 10 CFR 20.1403.

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ADAMS Accession No.: ML21055A494

***via email**

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