



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

April 7, 2021

Fadi Diya
Senior Vice President and Chief
Nuclear Officer
Ameren Missouri
Callaway Energy Center
8315 County Road 459
Steedman, MO 65077

SUBJECT: U.S. NUCLEAR REGULATORY COMMISSION ANALYSIS OF UNION ELECTRIC COMPANY'S INITIAL DECOMMISSIONING FUNDING PLAN FOR THE CALLAWAY PLANT, UNIT 1, INDEPENDENT SPENT FUEL STORAGE INSTALLATION

Dear Mr. Diya:

By letter dated August 17, 2015, Union Electric Company (Ameren Missouri) submitted, for U.S. Nuclear Regulatory Commission (NRC) staff review and approval, an initial decommissioning funding plan (DFP) for the Callaway Plant, Unit 1, (Callaway) independent spent fuel storage installation (ISFSI) located at Callaway Energy Center (Agencywide Documents Access and Management System (ADAMS) Accession No. ML15229A127).

In accordance with Title 10 of the *Code of Federal Regulations* (10 CFR), Section 72.30(b), and using NUREG-1757, Vol. 3, Rev. 1, "Consolidated Decommissioning Guidance," the NRC staff reviewed Ameren Missouri's initial DFP, including the initial decommissioning cost estimate (DCE) 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 ISFSIs. 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 Ameren Missouri 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 2015 initial DFP, Ameren Missouri estimated the total costs to decommission the ISFSI to unrestricted use, in 2015 dollars. The DCE provided for Callaway was \$7.4 million.

Based on its financial analysis of Ameren Missouri's submittal, the NRC staff finds that the DCE submitted for 2015: (1) is based on reasonable costs of a third-party contractor; (2) includes an adequate contingency factor; (3) reflects the cost of meeting the 10 CFR 20.1402 criteria for unrestricted use; and (4) is based on reasonable and documented assumptions. Therefore, the NRC finds that the 2015 DCE adequately estimates the cost, to carry out required ISFSI decommissioning activities prior to license termination, and that the 2015 DCE is acceptable.

In the initial DFP, Ameren Missouri relied on an external sinking fund as financial assurance for its ISFSI decommissioning, a method authorized by 10 CFR 50.75(e)(1)(ii)(A) and 10 CFR 72.30(e)(5). This is allowed because the Callaway 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 estimates, and therefore, that this financial instrument is acceptable.

Based on its financial analyses, the NRC staff finds that the initial DFP contains the information required by 10 CFR 72.30(b) and that Ameren Missouri has provided reasonable assurance that funds will be available to decommission the ISFSI at Callaway.

In addition to the NRC staff's review of Ameren Missouri's initial DFP, the NRC staff completed an environmental review. The NRC staff published a summary of the results of the environmental review in the *Federal Register* in April 2021 for the ISFSI at Callaway. The environmental assessment and finding of no significant impact for this ISFSI is available in <https://www.regulations.gov> under the Docket ID: NRC-2021-0063. The NRC staff determined there were no environmental impacts from the NRC staff's review and approval of DPC's initial DFP.

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

Sincerely,

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

Docket No.: 72-1045
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CAC No.: 001028
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INSTALLATION

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*** concurrence via email**

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