



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

April 7, 2021

Mr. Al Bates
Manager, Regulatory Affairs
Southern California Edison
P. O. Box 128
San Clemente, CA 92672

SUBJECT: U.S. NUCLEAR REGULATORY COMMISSION ANALYSIS OF SOUTHERN CALIFORNIA EDISON COMPANY'S INITIAL AND UPDATED DECOMMISSIONING FUNDING PLANS FOR THE SAN ONOFRE NUCLEAR GENERATING STATION INDEPENDENT SPENT FUEL STORAGE INSTALLATIONS

Dear Mr. Bates:

By letter dated December 14, 2012, Southern California Edison (SCE) on behalf of itself, San Diego Gas & Electric, former co-owner the City of Anaheim, and the City of Riverside, submitted, for U.S. Nuclear Regulatory Commission (NRC) staff review and approval, initial decommissioning funding plans (DFPs) for the independent spent fuel storage installations (ISFSIs) at the San Onofre Nuclear Generating Station (SONGS), Units 1, 2 and 3 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML130420384).¹

By letter dated December 14, 2015, Southern California Edison (SCE) on behalf of itself, San Diego Gas & Electric, former co-owner the City of Anaheim, and the City of Riverside, submitted, for U.S. Nuclear Regulatory Commission (NRC) staff review and approval, an updated decommissioning fund plan (DFP Update) for the Independent Spent Fuel Storage Installation (ISFSI) at San Onofre Nuclear Generating Station (SONGS) (Agencywide Documents Access and Management System (ADAMS) Accession No. ML15349A942).² The NRC staff issued Requests for Additional Information (RAIs) dated February 28, 2018, regarding SCE's DFP Update for the SONGS ISFSI (ADAMS Accession Nos. ML18060A148 and ML18060A149). SCE provided RAI responses to the NRC on April 11, 2018, which supplemented its 2015 DFP update. SCE's 2018 supplement can be found in ADAMS Accession No. ML18106A042.

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

¹ SONGS Unit 1 is co-owned by SCE (80%) and San Diego Gas & Electric (20%). SONGS Units 2 and 3 are co-owned by SCE (78.21%), San Diego Gas & Electric (20%), City of Anaheim (0.00%) and City of Riverside (1.79%). These entities share decommissioning liability as described in the initial DFP. ² The ownership arrangement described in the 2012 initial DFP was also reported in the 2015 DFP update and the 2018 supplement. These entities share decommissioning liability as described in the updates to the DFP.

² The ownership arrangement described in the 2012 initial DFP was also reported in the 2015 DFP update and the 2018 supplement. These entities share decommissioning liability as described in the updates to the DFP.

NRC staff reviewed SCE'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 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.

The NRC staff reviewed and analyzed the information submitted by SCE 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 2012 initial DFP, SCE estimated that the total cost to decommission the ISFSI at SONGS for unrestricted use is \$46.9 million, in 2012 dollars.

Based on its financial analysis of SCE's initial DFP, the staff finds that the DCE submitted for 2012: (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 2012 DCE adequately estimates the cost, at this time, to carry out required ISFSI decommissioning activities prior to license termination, and that the 2012 DCE is acceptable.

In its initial DFP, SCE relied on the external sinking fund method 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 SONGS 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 these financial instruments are acceptable.

The NRC staff reviewed the Initial DFP submitted by SCE, including the Initial DCE and the method of assuring funds for decommissioning, in accordance with 10 CFR 72.30(b) and NUREG-1757, Vol. 3, Rev. 1, "Consolidated Decommissioning Guidance." 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 SCE has provided reasonable assurance that funds will be available to decommission the SONGS ISFSI.

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 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 2018 supplement to the 2015 DFP update, SCE estimated that the total cost to decommission the ISFSI at SONGS for unrestricted use was \$43 million, including a 25 percent contingency factor, in 2017 dollars (ADAMS Accession No. ML18106A042). The updated DCE provided narratives on the requirements of 10 CFR 72.30(c)(1)-(4) and SCE explained that no changes in the factors listed in the initial 2012 DFP. Based on its review of SCE's 2015 DFP update and the 2018 supplement, the NRC staff finds that the updated DCE: is based on reasonable costs of a third-party contractor; includes an adequate contingency factor; reflects the cost of meeting the 10 CFR 20.1402 criteria for unrestricted use; and is based on reasonable and documented assumptions. Therefore, the NRC staff finds that the 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 2015 DFP update SCE, and its co-owners, San Diego Gas & Electric, the City of Anaheim (a former owner), and the City of Riverside reported the recovery of decommissioning costs under a cost-of-service rate regulation. Therefore, SCE was eligible to provide assurance using the external sinking fund method authorized by 10 CFR 50.75(e)(1)(ii)(A), which is allowed under 10 CFR 50.75(e)(1)(ii). In the 2015 DFP update SCE also reported an additional method of providing financial assurance. To the extent the decommissioning costs have been fully funded by the co-owners, and annual deposits are no longer required, the licensee also provided financial assurance using the prepayment method provided for in 10 CFR 50.75(e)(1)(i). These arrangements are allowed because the SONGS 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 instruments provides adequate financial assurance to cover its DCE. Therefore, the NRC staff finds these financial instruments are acceptable.

The NRC staff reviewed SCE's updated DFP submissions, 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 DFP update contains the information required by 10 CFR 72.30(c). The NRC staff finds that SCE has provided reasonable assurance that funds will be available to decommission the SONGS ISFSI.

In addition to the NRC staff's review of SCE's initial and 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* in **April 2021** for the ISFSIs at SONGS. The environmental assessments and findings of no significant impact for these ISFSIs are available in <https://www.regulations.gov> under the Docket ID: **NRC-2021-0064**. The NRC staff determined there were no environmental impacts from the NRC staff's review and approval of Exelon's initial and updated DFPs.

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(s): 72-41
License No.: SFGL-419
CAC No.: 001028
EPID No(s): L-2017-FPR-0062

SUBJECT: U.S. NUCLEAR REGULATORY COMMISSION ANALYSIS OF SOUTHERN CALIFORNIA EDISON COMPANY'S INITIAL DECOMMISSIONING FUNDING PLANS AND DECOMMISSIONING FUND PLAN UPDATES FOR THE SAN ONOFRE NUCLEAR GENERATING STATION INDEPENDENT SPENT FUEL STORAGE INSTALLATIONS

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NAME	CMarkley	SFigueroa*	PJehle* NLO with OGC's edits	JMcKirgan*
DATE	2/25/2021	3/3/2021	3/25/2021	4/7/2021

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