

April 11, 2018

10 CRF 72.30

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

Subject: **Docket No. 72-41**
Response to Request for Additional Information –
Southern California Edison's Decommissioning Funding Plan
Update for San Onofre Nuclear Generating Station Independent
Spent Fuel Storage Installation

References: (1) Letter from Pamela Longmire (NRC) to Thomas J. Palmisano (SCE),
Subject: "Request for Additional Information Regarding
Southern California Edison's Decommissioning Funding Plan
Update for San Onofre Nuclear Generating Station Independent
Spent Fuel Storage Installation" dated February 28, 2018

(2) Letter Thomas J. Palmisano (SCE) to Document Control Desk (NRC),
Subject: "Docket No. 50-206, 50-361, 50-362, and 72-41 10 CFR 72.30
ISFSI Decommissioning Funding Plan San Onofre Nuclear Generating
Station Units 1, 2, & 3", dated December 14, 2015

Dear Sir or Madam:

By letter dated February 28, 2018, the Nuclear Regulatory Commission (NRC) issued a Request for Additional Information (Reference 1) regarding the Independent Spent Fuel Storage Installation (ISFSI) Decommissioning Funding Plan for San Onofre Nuclear Generating Station Units 1, 2, & 3 (Reference 2).

Enclosure 1 provides Southern California Edison's (SCE's) response.

There are no new regulatory commitments contained in this letter.

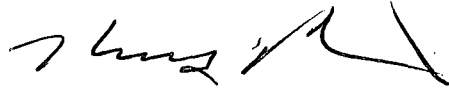
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If you have any questions or require additional information, please contact Mr. Albert Bates, at (949) 368-6945.

Executed on 4/11/18

Sincerely,

A handwritten signature in black ink, appearing to be "J. King" followed by a stylized flourish.

Enclosure: 1. Response to Request for Additional Information – Southern California Edison's Decommissioning Funding Plan Update for San Onofre Nuclear Generating Station Independent Spent Fuel Storage Installation

cc: K. Kennedy, Regional Administrator, NRC Region IV
M. G. Vaaler, NRC Project Manager, San Onofre Units 1, 2, and 3
W. C. Allen, NRC Project Manager, San Onofre ISFSI

Enclosure 1

**Response to Request for Additional Information – Southern
California Edison's Decommissioning Funding Plan Update
for San Onofre Nuclear Generating Station Independent
Spent Fuel Storage Installation**

RAI 1

For the SONGS ISFSI, provide a revised decommissioning funding plan (DFP) that includes information on the occurrence, and the effect of decommissioning costs, of each of the events listed in 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.

Southern California Edison (SCE) Response:

SCE's December 13, 2015 Independent Spent Fuel Storage Installation (ISFSI) Decommissioning Funding Plan (DFP) was based on the 2012 San Onofre Nuclear Generating Station (SONGS) Unit 1 and SONGS Units 2&3 Decommissioning Cost Estimates (DCEs), which were developed prior to the permanent retirement of SONGS Units 2&3. Because spent fuel from SONGS Unit 1 and from SONGS Units 2&3 is stored in the SONGS ISFSI, the ISFSI DFP was included as a subset of the 2012 SONGS Unit 1 and SONGS Units 2&3 DCEs, with each unit contributing its proportionate share of the ISFSI decommissioning costs.

The 2012 SONGS Units 2&3 DCE assumed that SONGS Units 2&3 would continue to operate until its licenses expired in 2022, and that the onsite Areva ISFSI that stored fuel from SONGS Units 1 and SONGS Units 2&3 would be expanded to store all SONGS Units 2&3 spent fuel generated through 2022.

Subsequently, SCE announced its intention to not restart SONGS Units 2&3 on June 7, 2013. With the commencement of SONGS Units 2&3 decommissioning, SCE re-evaluated its plan for expanding the SONGS ISFSI and selected Holtec to design and construct an ISFSI expansion for the spent fuel that remained in wet storage after SONGS Units 2&3 were permanently defueled. SCE's 2017 SONGS Unit 1 and SONGS Units 2&3 DCEs reflect the costs to decommission the existing Areva system and the new Holtec system used in the ISFSI. SCE prepared the 2017 DCEs in response to state requirements for the triennial review by the California Public Utilities Commission. SCE included this updated ISFSI decommissioning cost information in the Decommissioning Funding Status Report for 2018 submitted on March 20, 2018.

Rather than revising the 2015 ISFSI DFP, SCE provides the following responses to each of the events identified in 10 CFR 72.30 (c)(1)-(4) based on the information in the 2017 SONGS Unit 1 and SONGS Units 2&3 DCEs.

10 CFR 72.30 (c)(1) Spills of radioactive material producing additional residual radioactivity in onsite subsurface material:

The 2017 SONGS Unit 1 and SONGS Units 2&3 DCEs do not assume the occurrence of any spills of radioactive materials capable of producing additional residual radioactivity in onsite subsurface material, and do not include any estimated costs to remediate such materials.

- The SONGS ISFSI is located in a security protected area. Physical access to this area is positively controlled.
- All radioactive materials stored in the SONGS ISFSI are in a solid phase, sealed inside multi-purpose canisters.

- To the extent that any of the steel or concrete components of the ISFSI are activated by neutron radiation, such materials would be solid and incapable of being spread within the ISFSI or to onsite subsurface material outside the ISFSI.
- Any potential loose surface contamination is removed from the exterior of multi-purpose canisters before they are transported to and placed in the ISFSI. Therefore, no loose surface contamination exists in the ISFSI that is capable of being spread within the ISFSI or to onsite subsurface material outside the ISFSI.
- No liquid radioactive materials that are capable of spillage are stored within the ISFSI or permitted to be brought into the ISFSI.

10 CFR 72.30(c)(2) Facility modifications:

SCE's 2017 SONGS Unit 1 and SONGS Units 2&3 DCEs reflect the costs to decommission the existing Areva system and the new Holtec system used in the ISFSI. Estimated ISFSI decommissioning costs are provided in the response to item (4) below.

10 CFR 72.30(c)(3) Changes in authorized possession limits:

SCE is no longer authorized to change the current limits for possession of special nuclear material.

- SONGS Unit 1 was permanently retired on November 30, 1992.
- SONGS Units 2&3 were permanently retired on June 7, 2013.

10 CFR 72.30(c)(4) Actual remediation costs that exceed the previous cost estimate:

SCE currently plans to commence ISFSI decommissioning in 2050. SCE, therefore, has not yet incurred any actual remediation costs. Since SCE submitted its December 14, 2015 ISFSI Decommissioning Funding Plan, SCE has updated its estimated ISFSI decommissioning costs. SCE's former and updated plans, and the amounts of funds available for each respective plan, are shown below:

- SCE's December 14, 2015 ISFSI DFP was based on SCE's 2012 SONGS Unit 1 and SONGS Units 2&3 DCEs, and included the following estimated costs and decommissioning fund allocations (100% share, 2014\$):

	<u>ISFSI Decom Cost</u>	<u>Funds Allocated to ISFSI Decom</u>
SONGS Unit 1	\$ 4.8 million	\$ 8.7 million
SONGS Unit 2	\$ 15.3 million	\$ 15.7 million
SONGS Unit 3	\$ 15.3 million	\$ 15.7 million
TOTAL	\$ 35.4 million	\$ 40.1 million

- SCE's updated DFP is based on SCE's 2017 SONGS Unit 1 and SONGS Units 2&3 DCEs, and includes the following estimated costs and decommissioning fund allocations (100% share, 2017\$):

	<u>ISFSI Decom Cost</u>	<u>Funds Allocated to ISFSI Decom</u>
SONGS Unit 1	\$ 5.3 million	\$ 11.0 million
SONGS Unit 2	\$ 18.8 million	\$ 19.1 million
SONGS Unit 3	<u>\$ 18.9 million</u>	<u>\$ 19.2 million</u>
TOTAL	\$ 43.0.million	\$ 49.3 million

SCE's 2012 and 2017 site-specific ISFSI DFPs provide the estimated cost of meeting the 10 CFR 20.1402 radiological criteria for unrestricted site use, and include a 25% contingency factor. For future DFP updates, SCE will specifically state if the events in 10 CFR 72.30(c)(1)-(4) have any effect on the decommissioning costs.