

December 14, 2015

10 CFR 72.30

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

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

Dear Sir or Madam:

As required by 10 CFR 72.30, this letter provides the decommissioning funding plan for the San Onofre Nuclear Generating Station Units 1, 2, and 3 shares of the SONGS Independent Spent Fuel Storage Installation. The required information is provided for Southern California Edison, San Diego Gas & Electric, the City of Anaheim, and the City of Riverside.

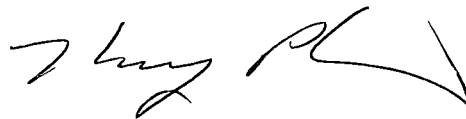
There are no new commitments contained in this letter or its enclosure.

If you have any questions regarding this matter, please contact Mr. Jim Kay, Manager, Nuclear Regulatory Affairs, at (949) 368-7418.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on 12/14/2015

Sincerely,



Enclosure: San Onofre Nuclear Generating Station ISFSI Decommissioning Funding Plan

cc: M. Dapas, 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

P.O. Box 128
San Clemente, CA 92674
(949) 368-6575
Fax: (949) 368-6183
tom.palmisano@sce.com

NM5520
NM5526

Enclosure
San Onofre Nuclear Generating Station
ISFSI Decommissioning Funding Plan

San Onofre Nuclear Generating Station ISFSI Decommissioning Funding Plan

The Independent Spent Fuel Storage Facility (ISFSI) at the San Onofre Nuclear Generating Station (SONGS) is located on the partially decommissioned site of SONGS Unit 1, and is operated under a 10 CFR 72 General License issued to holders of a 10 CFR 50 license.

The decommissioning funding requirements for the San Onofre Nuclear Generating Station (SONGS) Independent Spent Fuel Storage Installation (ISFSI) are currently addressed in the SONGS Unit 1 site-specific decommissioning cost estimate and the SONGS Units 2 and 3 site-specific decommissioning cost estimate.

Provided below is the information required by 10 CFR 72.30(b) for the SONGS Units 1, 2, and 3 ISFSI Decommissioning Funding Plan.

The SONGS Unit 1 co-owners are reported as follows:

Southern California Edison (SCE)	80.00 %
San Diego Gas & Electric (SDG&E)	<u>20.00 %</u>
	100.00 %

The SONGS Units 2 and 3 co-owners and former co-owner, Anaheim, are reported as follows:

Southern California Edison (SCE)	78.21 %
San Diego Gas & Electric (SDG&E)	20.00 %
City of Anaheim (Anaheim)	0.00 %
City of Riverside (Riverside)	<u>1.79 %</u>
	100.00 %

The decommissioning liability is shared between the current co-owners and former co-owner, Anaheim, as set forth below for each unit:

Owner	Unit 1 Decommissioning Liability	Unit 2 Decommissioning Liability	Unit 3 Decommissioning Liability
SCE	80.00%	75.7363%	75.7475%
SDG&E	20.00%	20.00%	20.00%
Anaheim	0.00%	2.4737%	2.4625%
Riverside	0.00%	1.7900%	1.7900%

1) Information on how reasonable assurance will be provided that funds will be available to decommission the ISFSI or MRS:

All costs associated with the decommissioning of the SONGS ISFSI are included in the site-specific decommissioning cost estimates for SONGS Units 1, 2, and 3. SCE's current site-specific decommissioning cost estimates (100% share, 2014 dollars) are as follows:⁽¹⁾⁽²⁾

SONGS Unit 1

"To Go" Radiological Costs	\$ 115.5 million
"To Go" Site Restoration Costs	\$ 77.2 million
"To Go" Fuel Storage Costs (incl. ISFSI Decom.)	<u>\$ 6.5 million</u>
Total "To Go" Costs as of 1/1/2015	\$ 199.2 million

SONGS Unit 2

"To Go" Radiological Costs	\$ 939.4 million
"To Go" Site Restoration Costs	\$ 369.6 million
"To Go" Fuel Storage Costs (incl. ISFSI Decom.)	<u>\$ 545.5 million</u>
Total "To Go" Costs as of 1/1/2015	\$1,854.5 million

SONGS Unit 3

"To Go" Radiological Costs	\$ 983.5 million
"To Go" Site Restoration Costs	\$ 545.7 million
"To Go" Fuel Storage Costs (incl. ISFSI Decom.)	<u>\$ 576.1 million</u>
Total "To Go" Costs as of 1/1/2015	\$ 2,105.3 million

The Decommissioning Trust Fund balances (2014 dollars) for SONGS Units 1, 2, and 3, as of December 31, 2014, (net of estimated capital gains taxes) were:⁽³⁾

<u>Co-Participants</u>	<u>SONGS Unit 1</u>
SCE	\$ 230.1 million
<u>SDG&E</u>	<u>\$ 131.4 million</u>
TOTAL	\$ 361.5 million

<u>Co-Participants</u>	<u>SONGS Unit 2</u>
SCE	\$1,465.4 million
SDG&E	\$ 410.9 million
Anaheim	\$ 61.8 million
<u>Riverside</u>	<u>\$ 37.7 million</u>
TOTAL	\$1,975.8 million
<u>Less: 2013-2014 Costs</u>	<u>\$ 226.2 million</u>
Net Balances	\$1,749.6 million

<u>Co-Participants</u>	<u>SONGS Unit 3</u>
SCE	\$1,641.3 million
SDG&E	\$ 465.3 million
Anaheim	\$ 67.2 million
<u>Riverside</u>	<u>\$ 40.6 million</u>
TOTAL	\$2,214.4 million
<u>Less: 2013-2014 Costs</u>	<u>\$ 225.2 million</u>
Net Balances	\$1,989.2 million

Each Co-owner's current annual contribution amounts (2014 dollars) to SONGS Units 2 and 3 decommissioning trusts are as follows:

<u>Co-Participant</u>	<u>SONGS Unit 1</u>	<u>SONGS Unit 2</u>	<u>SONGS Unit 3</u>
SCE	\$ 0.0 million	\$ 0.0 million	\$ 0.0 million
SDG&E	\$ 0.0 million	\$ 5.8 million	\$ 2.2 million
Anaheim	Not Applicable	\$ 0.0 million	\$ 0.0 million
Riverside	<u>Not Applicable</u>	<u>\$ 0.0 million</u>	<u>\$ 0.0 million</u>
	\$ 0.0 million	\$ 5.8 million	\$ 2.2 million

2) A detailed cost estimate for ISFSI decommissioning, in an amount reflecting:

- (i) The cost of an independent contractor to perform all decommissioning activities;**
- (ii) An adequate contingency factor; and**
- (iii) The cost of meeting the 20.1402 of this chapter criteria for unrestricted use, provided that, if the applicant or licensee can demonstrate its ability to meet the provisions of 20.1403 of this chapter, the cost estimate may be based on meeting the 20.1403 criteria.**

SCE's site-specific decommissioning cost estimates for SONGS Units 1, 2, and 3 were developed under the assumption that SCE would be the decommissioning agent and direct all ISFSI decommissioning work. The site-specific estimates for ISFSI decommissioning, and decommissioning trust funds currently allocated to ISFSI decommissioning, (100% share, 2014 dollars) are as follows:

	<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	<u>\$ 15.3 million</u>	<u>\$ 15.7 million</u>
TOTAL	\$ 35.4 million	\$ 40.1 million

These site-specific ISFSI decommissioning estimates include a 25% contingency factor.

The site-specific decommissioning cost estimates for SONGS Units 1, 2, and 3 include the cost of meeting the 10 CFR 20.1402 radiological criteria for unrestricted site use.

3) Identification of and justification for using the key assumptions contained in the decommissioning cost estimate.

The SONGS Units 1, 2, and 3 site-specific decommissioning cost estimates contain the following key assumptions that pertain to spent fuel storage and ISFSI decommissioning:

SONGS Unit 1:

- Permanently retired on November 30, 1992
- 395 fuel assemblies in 17 canisters are located in the SONGS ISFSI
- 1 canister of Greater Than Class C (GTCC) waste is located in the SONGS ISFSI
- DOE will commence transporting spent fuel assemblies to an offsite repository in 2024
- DOE will remove last SONGS Unit 1 fuel from the ISFSI by 2036

SONGS Unit 2:

- Permanently ceased operations on June 7, 2013
- 408 fuel assemblies in 17 canisters are currently located in the SONGS ISFSI
- 1,318 fuel assemblies are scheduled to be placed in canisters in the SONGS ISFSI by 2019
- Greater Than Class C (GTCC) waste will be placed in the SONGS ISFSI per schedule to be developed by future Decommissioning General Contractor
- DOE will commence transporting spent fuel assemblies to an offsite repository in 2024
- DOE will remove last SONGS Units 2 & 3 fuel from the ISFSI by 2049

SONGS Unit 3:

- Permanently ceased operations on June 7, 2013
- 384 fuel assemblies in 16 canisters are currently located in the SONGS ISFSI
- 1,350 fuel assemblies are scheduled to be placed in canisters in the SONGS ISFSI by 2019
- Greater Than Class C (GTCC) waste will be placed in the SONGS ISFSI per schedule to be developed by future Decommissioning General Contractor
- DOE will commence transporting spent fuel assemblies to an offsite repository in 2024
- DOE will remove last SONGS Units 2 & 3 fuel from the ISFSI by 2049

SONGS ISFSI

- The SONGS ISFSI will be decommissioned and the plant and ISFSI site will be decontaminated to meet 10 CFR 20.1402 site release criteria for unrestricted use as required to terminate the 10 CFR 50 licenses and the 10 CFR 72 General License by 2051.

These assumptions will be updated periodically due to the ongoing uncertainties regarding the availability of a permanent repository for spent fuel.

The assumption above regarding DOE commencing the transport of spent fuel assemblies to an offsite repository in 2024 is consistent with the most recent assumptions approved in proceedings before the California Public Utilities Commission (CPUC). This assumption will be updated periodically due to the ongoing uncertainties regarding the availability of a permanent repository for spent fuel.

4) **A description of the method of assuring funds for decommissioning from paragraph (e) of this section, including means for adjusting cost estimates and associated funding levels periodically over the life of the facility.**

Pursuant to 10 CFR 72.30(e)(5), power reactor licensees are authorized to use the financial assurance methods provided for in 10 CFR 50.75(e). All four Co-Participants recover the cost of decommissioning pursuant to cost-of-service rate regulation and, therefore, are eligible to provide assurance using the external sinking fund method provided for in 10 CFR 50.75(e)(1)(ii). To the extent the decommissioning costs are fully funded and annual deposits are no longer required, the Co-Participants provide assurance using the prepayment method provided for in 10 CFR 50.75(e)(1)(i).

SCE and SDG&E are also required to accumulate sufficient funds to decommission the SONGS facility under the California Nuclear Facilities Decommissioning Act, CA Public Utilities Code Section 8321, et seq. The California Public Utilities Commission (CPUC) has construed the SONGS decommissioning obligation to include: (1) radiological decommissioning as required to terminate the NRC licenses, (2) spent fuel storage (including ISFSI decommissioning), and (3) site restoration as required to terminate the SONGS site lease contracts granted by the U.S. Department of the Navy and the California State Lands Commission.

Under CA Public Utilities Code Section 8326(a)(2), SCE and SDG&E are required to update their site-specific nuclear facility decommissioning cost estimates periodically to reflect changes in decommissioning regulation, technology, and economics, for the purpose of adjusting contribution levels to their decommissioning trust.

Under CA Public Utilities Code Sections 8326(b), 8327, 8328, and 8329, the CPUC periodically reviews SCE and SDG&E's site-specific decommissioning cost estimates for the purpose of considering changes in electrical rates to ensure that sufficient funds will be available for payment of all decommissioning costs.

The Cities of Anaheim and Riverside are not under the jurisdiction of the CPUC.

Each Co-Participant deposits its decommissioning fund contributions into one or more external sinking funds as provided in 10 CFR 50.75(e)(1)(ii). The Co-Participants' decommissioning fund accumulations and annual contribution rates are provided in the response to Question 1, above.

5) **The volume of onsite subsurface material containing residual radioactivity that will require remediation to meet the criteria for license termination.**

The ISFSI does not contribute to subsurface material containing residual radioactivity because the dry shielded canisters are double seal welded and designed to meet the criteria of Interim Staff Guidance-18, Revision 1, "The Design and Testing of Lid Welds on Austenitic Stainless Steel Canisters as the Confinement Boundary for Spent Fuel Storage." This prevents the release of radionuclides in liquid or gaseous effluents from the SONGS ISFSI to the environment.

The SONGS ISFSI is located on the partially decommissioned site of SONGS Unit 1. The SONGS Unit 1 site-specific decommissioning cost estimate includes a volume of onsite subsurface material requiring some residual remediation to meet the criteria for license termination for the entire SONGS Unit 1 site.

6) A certification that financial assurance for decommissioning has been provided in the amount of the cost estimate for decommissioning.

Financial assurance for ISFSI decommissioning funding is provided through the process used to fund the decommissioning cost estimates of SONGS Units 1, 2, and 3 as described in the responses to Questions 1 and 4 above.

- Notes:
- (1) The site-specific decommissioning cost estimate for SONGS Unit 1 that was provided to the California Public Utilities Commission (CPUC) on December 21, 2012, includes the SONGS Unit 1 share of: (1) spent fuel storage and ISFSI decommissioning costs; (2) the remaining radiological costs associated with terminating the site license for SONGS Unit 1; (3) non-radiological costs, including the costs to excavate and dispose of all remaining structures, appurtenances, and foundations from the SONGS Unit 1 onshore site, to perform final site restoration; and to disposition the SONGS Unit 1 offshore circulating water conduits. The CPUC approved the SONGS Unit 1 decommissioning cost estimate on December 18, 2014.
 - (2) The site-specific decommissioning cost estimate for SONGS Units 2 and 3 that were provided to the CPUC on December 10, 2014, include the SONGS Units 2 and 3 shares of: (1) spent fuel storage and ISFSI decommissioning costs; (2) radiological costs associated with terminating the site licenses for SONGS Units 2 and 3; (3) non-radiological costs, including the costs to excavate and dispose of all remaining structures, appurtenances, and foundations from the SONGS Units 2 and 3 onshore site, and to perform final site restoration; and the costs to disposition the SONGS Units 2 and 3 offshore circulating water conduits. This decommissioning cost estimate is currently pending before the CPUC.
 - (3) SCE is submitting information with respect to the SONGS decommissioning co-participants, SDG&E, Anaheim, and Riverside. SDG&E, Anaheim, and Riverside are each responsible for the completeness and accuracy of their information.