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Douglas R. Bauder
Site Vice President & Station Manager
San Onofre Nuclear Generating Station

10 CFR 72.30

December 14, 2012

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, for review and approval, 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 Linda Conklin, Licensing Manager, at 949-368-9443.

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

Executed on 12/14/2012

By: 

Douglas R. Bauder
Site Vice President and Station Manager

P.O. Box 128
San Clemente, CA 92672
(949) 368-9275 PAX 89275
Fax: (949) 368-9881
Doug.Bauder@sce.com

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Enclosure: San Onofre Nuclear Generating Station ISFSI Decommissioning Funding
Status Plan

cc: E. E. Collins, Regional Administrator, NRC Region IV
J. E. Whitten, NRC Region IV, San Onofre Unit 1
J. C. Shepherd, NRC Project Manager, San Onofre Unit 1
R. Hall, NRC Project Manager, San Onofre Units 2 and 3
B. Benney, NRC Project Manager, San Onofre Units 2 and 3
G. G. Warnick, NRC Senior Resident Inspector, San Onofre Units 2 & 3
W. C. Allen, NRC Project Manager, San Onofre ISFSI

Enclosure
San Onofre Nuclear Generating Station
ISFSI Decommissioning Funding Plan

San Onofre Nuclear Generating Station ISFSI Decommissioning Funding Plan

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 estimates.

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 %

All dollar amounts are reported in 100% share, 2012 dollars.

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%	76.30%	76.35%
SDG&E	20.00%	20.00%	20.00%
Anaheim	0.00%	1.91%	1.86%
Riverside	0.00%	1.79%	1.79%

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 are as follows:⁽¹⁾⁽²⁾

	<u>SONGS Unit 1</u>
"To Go" Radiological Costs	\$ 183.3 million
"To Go" Site Restoration Costs	\$ 10.7 million
"To Go" Fuel Storage Costs (incl. ISFSI Decom.)	<u>\$ 11.2 million</u>
Total "To Go" Costs as of 1/1/2012	\$ 205.2 million

	<u>SONGS Unit 2</u>
Radiological Costs	\$1,273.6 million
Site Restoration Costs	\$ 417.0 million
Fuel Storage Costs (incl. ISFSI Decommissioning)	<u>\$ 385.3 million</u>
Total Costs as of 1/1/2012	\$2,075.9 million

	<u>SONGS Unit 3</u>
Radiological Costs	\$ 1,262.4 million
Site Restoration Costs	\$ 535.5 million
Fuel Storage Costs (incl. ISFSI Decommissioning)	<u>\$ 368.3 million</u>
Total Costs as of 1/1/2012	\$ 2,166.2 million

The Decommissioning Trust Fund balances for SONGS Units 1, 2, and 3, as of October 31, 2012, (net of estimated capital gains taxes) are :⁽³⁾

<u>Co-Owners</u>	<u>SONGS Unit 1</u>
SCE	\$ 195.1 million
<u>SDG&E</u>	<u>\$ 96.3 million</u>
TOTAL	\$ 291.4 million

<u>Co-Owners</u>	<u>SONGS Unit 2</u>
SCE	\$1,213.1 million
SDG&E	\$ 327.5 million
Anaheim	\$ 61.0 million
<u>Riverside</u>	<u>\$ 36.5 million</u>
TOTAL	\$1,638.1 million

<u>Co-Owners</u>	<u>SONGS Unit 3</u>
SCE	\$1,377.0 million
SDG&E	\$ 382.6 million
Anaheim	\$ 66.3 million
<u>Riverside</u>	<u>\$ 39.5 million</u>
TOTAL	\$1,865.4 million

The SONGS Unit 1 decommissioning trust is currently considered to be fully funded.

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

<u>Co-owner</u>	<u>SONGS Unit 2</u>	<u>SONGS Unit 3</u>
SCE	\$ 17.6 million	\$ 5.1 million
SDG&E	\$ 5.8 million	\$ 2.2 million
Anaheim	\$ 0.0 million	\$ 0.0 million
<u>Riverside</u>	<u>\$ 0.9 million</u>	<u>\$ 0.7 million</u>
	\$ 24.3 million	\$ 8.0 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 of this chapter.**

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 are as follows:

SONGS Unit 1	\$ 4.6 million
SONGS Unit 2	\$ 21.1 million
SONGS Unit 3	<u>\$ 21.2 million</u>
TOTAL	\$ 46.9 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, approved by the CPUC on July 29, 2010, contain the following key assumptions that pertain to spent fuel storage and ISFSI decommissioning:

The SONGS ISFSI is located on the partially decommissioned site of SONGS Unit 1, and is operated under a Part 50 General License.

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 a deep geologic repository in 2020
- DOE will remove last SONGS Unit 1 fuel from the ISFSI in 2036

SONGS Unit 2:

- Current NRC operating license will expire on February 16, 2022
- DOE will commence transporting spent fuel assemblies to a deep geologic repository in 2020
- 945 fuel assemblies will be removed by DOE from the spent fuel pool by 2034
- 1,536 fuel assemblies will be placed in 64 canisters in the SONGS ISFSI by 2034
- 5 canisters of Greater Than Class C (GTCC) waste will be placed in the SONGS ISFSI by 2034
- DOE will remove last SONGS Unit 2 fuel from the ISFSI by 2051

SONGS Unit 3:

- Current NRC operating license will expire on November 15, 2022
- DOE will commence transporting spent fuel assemblies to a deep geologic repository in 2020
- 987 fuel assemblies will be removed by DOE from the spent fuel pool by 2034
- 1,501 fuel assemblies will be placed in 63 canisters in the SONGS ISFSI by 2034
- 5 canisters of Greater Than Class C (GTCC) waste will be placed in the SONGS ISFSI by 2034
- DOE will remove last SONGS Unit 3 fuel from the ISFSI by 2051

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 Part 50 General License by 2053.

These assumptions 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.**

SCE and the SONGS co-owners are required to accumulate sufficient funds to decommission the SONGS facility under 10 CFR 50.75 and 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, 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.

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

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.

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 containing 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 April 3, 2009, 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, and to perform site restoration, as required under the current site lease contract(s) with the U.S. Department of the Navy, and to disposition the SONGS Unit 1 offshore

circulating water conduits as required under the current amendment to the easement-lease granted by the California State Lands Commission. The CPUC approved the SONGS Unit 1 decommissioning cost estimate on July 29, 2010.

- (2) The site-specific decommissioning cost estimates for SONGS Units 2 and 3 that were provided to the California Public Utilities Commission (CPUC) on April 3, 2009, 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 site restoration, as required under the current site lease contract(s) with the U.S. Department of the Navy, and to disposition the SONGS Units 2 and 3 offshore circulating water conduits as required under the current easement-lease granted by the California State Lands Commission. The CPUC approved the SONGS Units 2 and 3 decommissioning cost estimates on July 29, 2010.
- (3) SCE is submitting information with respect to its co-owners, SDG&E, Anaheim, and Riverside. SDG&E, Anaheim, and Riverside are each responsible for the completeness and accuracy of their information.