

July 29, 2013

Mr. Robert Martin  
Senior Project Manager  
Plant Licensing Branch II-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555-0001

Subject: Virgil C. Summer Nuclear Station, Unit 1 (VCSNS-1) – Request for Additional Information Concerning 2013 Decommissioning Funding Status Report (TAC No. MF2250)

Dear Mr. Martin:

In your letter dated July 22, 2013, you requested additional information in regard to the South Carolina Public Service Authority (Santee Cooper) submission of its 2013 Decommissioning Funding Status Report. Our response is contained in the attachment and exhibits accompanying this letter.

Sincerely,



Michael R. Crosby  
Vice President  
Nuclear Operations and Construction

Attachment

cc: Bruce Thompson, SCE&G

A001  
NRR

Response To Request For Additional Information  
By The Office Of Nuclear Reactor Regulation  
2013 Decommissioning Funding Status (DFS) Report  
For Virgil C. Summer Nuclear Station  
DOCKET NO. 50-395

By letter dated July 22, 2013, the Office of Nuclear Reactor Regulation requested additional information regarding Santee Cooper's 2013 Decommissioning Funding Status Report for Virgil C. Summer Nuclear Station, Unit 1 (VCSNS-1). This document along with enclosed exhibits provides the additional information requested.

REQUEST

Provide the citation (e.g., an Order by the rate-regulatory authority) by the regulatory entity that allows for the assumptions used regarding rates of escalation in decommissioning costs, rate of earnings on decommissioning funds and rates of other factors as stated within the DFS report.

RESPONSE

The Santee Cooper Board of Directors is the rate-regulatory authority for Santee Cooper. On March 22, 1999 the Board of Directors adopted a resolution containing the following language: "Upon the recommendation of management, the Board of Directors authorizes the use of the effective yield of the trust portfolio for purposes of determining future decommissioning funding needs." This resolution, included as Exhibit 1, is the authorization for our earning rate assumptions.

We have assumed escalation rates for each of four decommissioning cost categories (labor, equipment & materials, waste burial, and other) identified in the 2012 site-specific study conducted by TLG Services, Inc. (TLG) for VCSNS-1. The escalation rates used by Santee Cooper in the 2013 DFS report were approved by the Vice President of Nuclear Operations and Construction and represent our best estimates of future cost increases (see Exhibit 2).

MB-99-06

## NUCLEAR OVERSIGHT COMMITTEE

Authorization of Use of  
Portfolio Effective Yield for  
Decommission Fund Planning

\*March 22, 1999

ADOPTED REJECTED POSTPONED RESOLUTION

WHEREAS, Santee Cooper owns a one-third undivided interest in the Virgil C. Summer Nuclear Station Unit #1; and

WHEREAS, The Nuclear Regulatory Commission (NRC) has issued Facility License No. NPF-12 to the South Carolina Electric Gas Company and the South Carolina Public Service Authority (Santee Cooper); and

WHEREAS, The NRC has promulgated regulations under the Atomic Energy Act of 1954, as amended, and the Energy Reorganization Act of 1974, requiring that owners of licensed nuclear facilities provide that funds are available for required decommissioning activities; and

WHEREAS, Santee Cooper has elected to establish an external trust fund and an internal fund to provide for these activities; and

WHEREAS, Santee Cooper must furnish a funding plan to the NRC that will demonstrate that adequate funds will be available to meet these decommissioning activities; and

WHEREAS, The Board of Directors is empowered as a state regulatory authority to set rates and charges necessary to provide for Santee Cooper's expenses and has complete regulatory authority over Santee Cooper.

NOW, THEREFORE, BE IT RESOLVED That upon the recommendation of management, the Board of Directors authorizes the use of the effective yield of the trust portfolio for purposes of determining future decommissioning funding needs.

\*If approved by Committee, this Resolution will be presented to the full Board for approval.

This resolution was referred to and approved by the full Board.



## INTER-OFFICE COMMUNICATION

**DATE:** July 25, 2013

**TO:** Michael Crosby, Vice President, Nuclear Operations and Construction

**FROM:** Thomas Wagner, Financial Analyst III, Nuclear Contract Administration *TRW*

**SUBJECT:** Decommissioning Study Update

As required by the Nuclear Regulatory Commission (NRC) and in accordance with prudent utility practice, Santee Cooper systematically sets aside funds to provide for the eventual decommissioning of VC Summer Nuclear Station Unit 1. The amount of annual decommissioning funding deposit is currently based on NRC requirements, estimated cost escalation and fund earnings rates, and the results of a site-specific decommissioning study conducted by TLG Services, Inc. (TLG) in 2006.

In 2012, TLG updated the 2006 decommissioning cost study, issuing a final report in February 2013. The chart below compares the results of the 2006 TLG study with the 2012 study update.

Year of Costs	2006 Study		2012 Study	Increase
	2006	2012	2012	2012
Decommissioning Costs @ 1/3	\$178,877	\$220,431	\$315,125	\$94,694

The findings of the 2012 study indicate that since 2006, the overall estimated cost for decommissioning has escalated approximately \$95 million more than anticipated by current funding assumptions. The 2006 TLG study included the assumption that the transfer of spent fuel to a repository at Yucca Mountain would commence no later than 2021 and be completed by 2052, or ten years after plant operations cease. The 2012 TLG study assumed the transfer of fuel would begin no later than 2055 and end in 2095, or 53 years after operations cease. This schedule for spent fuel storage in the 2012 study accommodates a deferred decommissioning of the plant within the required 60 year period (from the cessation of operations). The difference in the spent fuel storage end dates, or 43 years, adds approximately \$91 million of additional spent fuel management costs to the 2012 study. The remaining \$4 million of the \$95 million variance in total costs between the two studies is attributable to differences in estimated and actual cost escalations.

Based on the results of the 2012 study, current cost escalation assumptions have been reviewed and changes are recommended. The new proposed cost escalation assumptions by cost category are as follows:

Cost Category	Current Escalation Assumption	Proposed Escalation Assumption
Labor	4.56%	3.13%
Equipment & Materials	0.39%	5.95%
Burial	2.92%	2.92%
Other	3.51%	4.96%

Proposed changes to the escalation assumptions for *Labor, Equipment & Materials*, and *Other* are recommended based on actual cost escalations between the 2006 TLG study and the 2012 TLG study. No change is recommended to the escalation assumption for *Burial* based on actual costs from the 2006 and 2012 TLG studies.

As noted above, an assumption of 43 additional years of interim storage of spent fuel increased decommissioning costs by approximately \$91 million in the 2012 TLG study. The federal government is responsible for the long-term disposal of spent fuel. DOE is currently reimbursing for a significant portion of the construction costs of a dry cask storage facility at VC Summer Unit 1. It is expected that a significant portion of the spent fuel management cost identified in the 2012 TLG study will also be reimbursed by DOE during the time period DOE does not have a facility to accept spent fuel. How much of the spent fuel management cost DOE will reimburse has not been estimated by SCE&G. Using the current information about DOE reimbursements for the construction costs of the dry cask storage facility, a recommendation is proposed to assume 75% of spent fuel storage costs in the 2012 TLG study will be reimbursed by DOE.

Decommissioning funding requirements were recalculated based on the 2012 TLG decommissioning cost estimate, on the proposed cost escalation assumptions, on the proposed DOE reimbursement assumption, and on updated earnings projections for the decommissioning trust and internal decommissioning fund. Projected earnings for the trust and the internal fund were recently reevaluated by Santee Cooper's Treasury department and both have increased. From May 2012 to March 2013, the average estimated earnings rate for the trust increased from 4.5% to 4.9%, while the average rate for the internal fund increased from 4.3% to 4.7%. Due to the DOE reimbursement assumption and the higher projected earnings for the decommissioning trust and internal fund, the annual amount to be deposited into the trust will decrease by approximately \$600,000. The required annual funding amount for the decommissioning trust is approximately \$2 million beginning in 2014. Half of the \$2 million will come from the internal decommissioning fund, while the remaining \$1 million will come from operations.

The NRC required minimum funding amount was also updated. The NRC minimum amount increased by 9% over the prior year primarily due to an increase in the waste burial escalation factor. Despite an increase to the NRC minimum amount, trust funding levels will be decreased due to the projected increase in trust earnings.

Implementing the proposed deposits into the decommissioning trust, along with projected earnings, will sufficiently provide for meeting the NRC required minimum amount. Further, the proposed transfers from the internal decommissioning fund to the decommissioning trust, along with projected earnings, will leave sufficient funding in the internal fund for the remaining estimated decommissioning costs. It is recommended that the proposed annual transfer of \$954,840 commence after January 1, 2014. Please note that for Central cost of service purposes, as well as other customers' rates, the \$954,840 transfer is applied against the monthly deposit to the trust and does not constitute an additional cost for our customers.

Effective January 1, 2014, the new monthly deposit requirement is as follows:

	2013 Current Funding	2014 & Later Proposed Funding	Increase (Decrease)
Trust	\$213,225	\$164,785	(\$48,440)
Internal Fund	\$0	\$0	\$0
Transfer from Internal Fund	(\$79,855)	(\$79,570)	\$285
Total Monthly	\$133,370	\$85,215	(\$48,155)
Total Annual	\$1,600,440	\$1,022,580	(\$577,860)

Michael Crosby  
July 25, 2013  
Page Three

Please let me know if you have any questions or would like to discuss further.

Concurrence: Michael R. Crosby  
Michael Crosby  
VP, Nuclear Operations & Construction

7-25-13  
Date

cc: R.M. Singletary (M-606)  
Jim Brogdon (M-603)  
Jeff Armfield (M-602)  
Suzanne Ritter (M-301)  
Glenda Gillette (M-202)



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*"Dependable Power, Dependable People"*

TO: Mr. Robert Martin  
Senior Project Manager  
Plant Licensing Branch II-I  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555-0001

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