



Jeffrey B. Archie  
Vice President, Nuclear Operations  
803.345.4214

April 24, 2007  
RC-07-0063

Document Control Desk  
U. S. Nuclear Regulatory Commission  
Washington, DC 20555

Attention: Mr. Michael Dusaniwskyj

Dear Mr. Dusaniwskyj:

Subject: VIRGIL C. SUMMER NUCLEAR STATION  
DOCKET NO. 50/395  
OPERATING LICENSE NO. NPF-12  
AMENDED REPORT OF STATUS OF DECOMMISSIONING FUNDING

Reference: 1. J. B. Archie, SCE&G, letter to Document Control Desk dated March 28, 2007, RC-07-0043.  
2. Telecons between Michael Dusaniwskyj, NRC, and SCE&G Staff (Bruce Thompson, Arnie Cribb, Robert Caldwell, Susan Reese, Ernest McCravy)

This report is an amendment to the Report of Status of Decommissioning Funding filed with the U.S. Nuclear Regulatory Commission (NRC) on March 28, 2007. Based on discussions with you, this amended report reflects revisions to trust balances, collection amounts, program costs and loan repayment amounts reflected in the Financial Assurance Model (the "Model") in Attachment II in order to limit the Model solely to those estimated (radiological) costs specifically addressed by the NRC's financial assurance formula (10 CFR 50.75 (b) and (c)).

South Carolina Electric and Gas Company (SCE&G) and the South Carolina Public Service Authority (Santee Cooper) have ownership interests of two-thirds and one-third respectively in the V. C. Summer Nuclear Station (VCSNS). As provided in 10 CFR 50.75(f)(1), SCE&G is required to report to the NRC, by March 31, 1999, and every two years thereafter, on the status of its decommissioning funding for its share of ownership of VCSNS. Santee Cooper discloses the required information relative to its one-third ownership share in a separate submittal.

The following information is submitted pursuant to the requirement of 10 CFR 50.75(f)(1):

*The amount of decommissioning funds estimated to be required pursuant to 10 CFR 50.75 (b) and (c);*

The amount of decommissioning funds estimated to be required pursuant to 10 CFR 50.75 (b) and (c) for SCE&G's two-thirds ownership of VCSNS is \$232,469,253 (2006 dollars). Please see Attachment I for the calculation of this amount.

*The amount accumulated at the end of the calendar year preceding the date of the report;*

The accumulated trust fund balance which could be considered to be related solely to radiological costs addressed in the NRC's financial assurance formula, as of December 31, 2006, was \$73,761,428. This balance includes cash and cash surrender values of life insurance policies. See Attachment II for more information. The \$73,761,428 is net of loans made to the trust by Bank of America in the amount of \$24.4 million. However, approximately \$24.3 million of advances from SCE&G to fund premium payments have not been deducted in arriving at the amount accumulated in the trust fund. These amounts reflect 88.69% of actual balances in the trust, as described above.

*A schedule of the annual amounts remaining to be collected;*

Please see Attachment II. The total after-tax annual collection amount is currently \$1,991,388, which collection amount was based on a 1991 site-specific cost study. Annual amounts collected through rates have not changed since 1993. For purposes of the revised Model, approximately 88.69% of the current collection amounts could be considered to be related to items included in 10 CFR 50.75 (b) and (c), determined as follows:

|  |               |
|--|---------------|
| Site-specific study (1991) estimate of decommissioning costs pursuant to NRC definition (two-thirds portion) | \$118,256,667 |
| Customer collection basis (two-thirds portion)   | 133,333,333   |
| Percent of costs/collections related to items included in NRC definition                                     | 88.69%        |

Therefore, the annual after-tax amounts to be collected which could be considered to be related solely to items addressed in the NRC's financial assurance formula are shown as \$1,766,162 ( $.8869 \times \$1,991,388$ ) in the Financial Assurance Model in Attachment II.

*The assumptions used regarding rates of escalation in decommissioning cost, rates of earnings on decommissioning funds, and rates of other factors used in funding projections;*

Please see Attachment II.

*Any contracts upon which the licensee is relying pursuant to paragraph (e)(1)(v) of this section;*

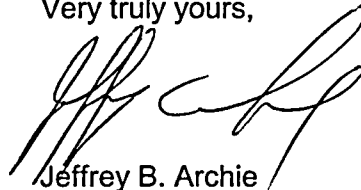
None

*Any modifications occurring to a licensee's current method of providing financial assurance since the last submitted report;*      None

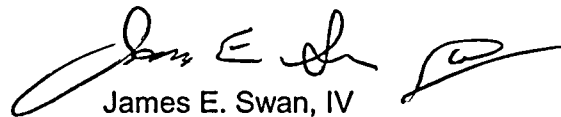
*Any material changes to trust agreements.*      None

If you have any questions, please call Mr. Bruce Thompson at (803) 931-5042.

Very truly yours,



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Vice President  
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**ATTACHMENT I  
CALCULATION OF AMOUNT OF DECOMMISSIONING  
FUNDS ESTIMATED TO BE REQUIRED  
PURSUANT TO 10 CFR 50.75 (b) AND (c);**

**Base Amount for PWR between 1,200 MWt and 3,400 MWt**

$$\begin{aligned} \text{1986 Base Cost} &= \$ (75 + 0.0088p) \text{ million} \\ &= \$ (75 + 0.0088 \times 2900) \text{ million} \\ &= \$100,520,000 \end{aligned}$$

$$\begin{aligned} \text{Estimated Cost (Year X)} &= (1986 \$ \text{ Base Cost}) (A L_x + B E_x + C B_x) \\ \text{Estimated Cost 2006} &= (\$100,520,000) ((.65 \times 2.049) + (.13 \times 1.883) + (.22 \times 8.600)) \\ &= (\$100,520,000) (1.332 + 0.245 + 1.892) \\ &= \$348,703,880 \end{aligned}$$

$$\text{SCE\&G's two-thirds ownership share of 2006 Estimated Cost} = \underline{\underline{\$232,469,253}}$$

Where:

$$\begin{aligned} p &= 2,900 \text{ MWt} \\ A &= .65 \quad (\text{NUREG 1307 Rev. 12}) \\ B &= .13 \quad (\text{NUREG 1307 Rev. 12}) \\ C &= .22 \quad (\text{NUREG 1307 Rev. 12}) \\ L_x &= 2.049 \quad (\text{Computed Below}) \\ E_x &= 1.883 \quad (\text{Computed Below}) \\ P_x &= 1.468 \quad (\text{Computed Below}) \\ F_x &= 2.456 \quad (\text{Computed Below}) \\ B_x &= 8.600 \quad (\text{NUREG 1307 Rev. 12}) \\ \\ L_x &= (1.98)_{\text{Base 2005}} \times (103.5) \text{ECI} / (100) \\ &= 2.049 \\ \\ P_x &= 12/06 \text{Value} / \text{January 1986 Value} \\ &= 167.6 / 114.2 \\ &= 1.468 \\ \\ F_x &= 12/06 \text{Value} / \text{January 1986 Value} \\ &= 201.4 / 82.0 \\ &= 2.456 \\ \\ E_x &= ((.58P_x) + (.42F_x)) \\ &= ((.58 \times 1.468) + (.42 \times 2.456)) \\ &= (.8514 + 1.0315) \\ &= 1.8829 \end{aligned}$$

March 5, 2007 values in the following Bureau of Labor Statistics indices were used to compute NRC minimum requirements:

Employment Cost Index (ECI)– South Region  
Producer Price Index – Commodities

(Series ID: CIU2010000000220i)  
(Series ID: wpu0543 and wpu0573)

**ATTACHMENT II**  
**EXPLANATION OF FINANCIAL ASSURANCE**  
**MECHANISM AND AMOUNTS**  
**REMAINING TO BE COLLECTED**

**Financial Assurance Mechanism**

SCE&G is the operator of VCSNS and shares the operating costs and energy output of the plant with Santee Cooper in the proportions of two-thirds and one-third, respectively. Under the plan used by SCE&G to fund its share of the costs of decommissioning VCSNS, funds collected through rates are invested in life insurance policies on key company personnel who, in return for participating in the plan, receive a two-year salary continuation benefit from SCE&G. SCE&G has established a decommissioning trust fund (trust fund) with Wachovia Bank, N.A. (successor to First Union National Bank) as Trustee. SCE&G and the trust fund are beneficiaries of the life insurance policies. Lynch & Associates is the servicing agent for the life insurance policies. Through the purchase of life insurance contracts, SCE&G and the trust fund are able to take advantage of income tax provisions that allow SCE&G to accrue earnings on the life insurance contracts on a tax deferred basis. In a letter dated July 13, 1989, the NRC indicated that the program satisfies the investment criteria of its financial assurance regulations. Further, this funding methodology has been approved by the South Carolina Public Service Commission (SCPSC).

The value of the policies compounds on a tax deferred basis. Upon the death of the insured, the policy proceeds are remitted tax-free, with the trust fund receiving the cash surrender value and SCE&G receiving the death benefit component in order to recover its term premium and salary continuation payments, if applicable. Designated amounts collected through electric rates, insurance proceeds, and interest on proceeds, less after-tax expenses of the program, are transferred by SCE&G to the trust fund.

In SCE&G's June 1993 electric rate case, the PSC approved gross annual collections for decommissioning in the amount of \$3,224,920, of which \$2,860,181 (88.69%) or \$1,766,162 after-tax, could be considered to be related solely to items addressed in the NRC's financial assurance formula, based upon cost estimates contained in a 1991 site-specific study. In subsequent rate orders, including a rate order issued in January 2005, the PSC has not changed this amount. SCE&G will reassess the adequacy of annual collections on a continuing basis as future site-specific decommissioning cost studies are completed.

The Model on page 2 incorporates the 2007 beginning trust fund balance (gross of loans) and projections of annual amounts (after-tax) collected through electric rates, program costs (net of tax), investment earnings, payments of decommissioning costs estimated to be required pursuant to 10 CFR 50.75 (b) and (c), and repayments of loans and advances. The estimated timing of expenditure of the \$232,469,253 (calculated in Attachment I) is based on our 2006 site-specific study (DECON estimate). Relevant assumptions used in the Model are discussed on page 3 of 3.

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## Attachment II

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Financial Assurance Model

| Year | External Trust,<br>Beginning<br>Balance | Schedule of<br>Annual<br>Collection<br>Amounts | Program Costs,<br>Net of Tax | Decommissioning<br>Payments/Loan<br>Repayments | Investment<br>Earnings | External Trust,<br>Ending Balance | Balance, Net<br>of Bank Loan |
|------|---|--|------------------------------|--|------------------------|-----------------------------------|------------------------------|
| 2006 |   |  |                              |  |                        | 98,151,178                        | 73,761,428                   |
| 2007 | 98,151,178                              | 1,766,162                                      | 1,453,906                    |  | 1,969,269              | 100,432,703                       | 76,042,953                   |
| 2008 | 100,432,703                             | 1,766,162                                      | 1,467,658                    |  | 2,014,624              | 102,745,831                       | 78,356,081                   |
| 2009 | 102,745,831                             | 1,766,162                                      | 1,462,244                    |  | 2,060,995              | 105,110,744                       | 80,720,994                   |
| 2010 | 105,110,744                             | 1,766,162                                      | 1,475,996                    |  | 2,108,018              | 107,508,929                       | 83,119,179                   |
| 2011 | 107,508,929                             | 1,766,162                                      | 1,523,850                    |  | 2,155,025              | 109,906,265                       | 85,516,515                   |
| 2012 | 109,906,265                             | 1,766,162                                      | 1,484,334                    |  | 2,203,762              | 112,391,855                       | 88,002,105                   |
| 2013 | 112,391,855                             | 1,766,162                                      | 1,478,918                    |  | 2,253,582              | 114,932,681                       | 90,542,931                   |
| 2014 | 114,932,681                             | 1,766,162                                      | 1,492,671                    |  | 2,304,123              | 117,510,295                       | 93,120,545                   |
| 2015 | 117,510,295                             | 1,766,162                                      | 1,487,256                    |  | 2,355,784              | 120,144,986                       | 95,755,236                   |
| 2016 | 120,144,986                             | 1,766,162                                      | 1,554,278                    |  | 2,407,137              | 122,764,007                       | 98,374,257                   |
| 2017 | 122,764,007                             | 1,766,162                                      | 1,495,594                    |  | 2,460,692              | 125,495,267                       | 101,105,517                  |
| 2018 | 125,495,267                             | 1,766,162                                      | 1,509,347                    |  | 2,515,042              | 128,267,124                       | 103,877,374                  |
| 2019 | 128,267,124                             | 1,766,162                                      | 1,503,931                    |  | 2,570,587              | 131,099,941                       | 106,710,191                  |
| 2020 | 131,099,941                             | 1,766,162                                      | 1,517,685                    |  | 2,626,968              | 133,975,387                       | 109,585,637                  |
| 2021 | 133,975,387                             | 1,766,162                                      | 1,565,538                    |  | 2,683,520              | 136,859,531                       | 112,469,781                  |
| 2022 | 136,859,531                             | 1,766,162                                      | 1,526,021                    |  | 2,741,993              | 139,841,665                       | 115,451,915                  |
| 2023 | 139,841,665                             | 1,766,162                                      | 1,520,607                    |  | 2,801,744              | 142,888,965                       | 118,499,215                  |
| 2024 | 142,888,965                             | 1,766,162                                      | 1,534,359                    |  | 2,862,415              | 145,983,183                       | 121,593,433                  |
| 2025 | 145,983,183                             | 1,766,162                                      | 1,528,944                    |  | 2,924,408              | 149,144,809                       | 124,755,059                  |
| 2026 | 149,144,809                             | 1,766,162                                      | 1,595,966                    |  | 2,986,300              | 152,301,305                       | 127,911,555                  |
| 2027 | 152,301,305                             | 1,766,162                                      | 1,537,282                    |  | 3,050,604              | 155,580,790                       | 131,191,040                  |
| 2028 | 155,580,790                             | 1,766,162                                      | 1,551,035                    |  | 3,115,918              | 158,911,835                       | 134,522,085                  |
| 2029 | 158,911,835                             | 1,766,162                                      | 1,545,619                    |  | 3,182,648              | 162,315,026                       | 137,925,276                  |
| 2030 | 162,315,026                             | 1,766,162                                      | 1,559,372                    |  | 3,250,436              | 165,772,252                       | 141,382,502                  |
| 2031 | 165,772,252                             | 1,766,162                                      | 1,607,226                    |  | 3,318,624              | 169,249,811                       | 144,860,061                  |
| 2032 | 169,249,811                             | 1,766,162                                      | 1,567,710                    |  | 3,388,965              | 172,837,228                       | 148,447,478                  |
| 2033 | 172,837,228                             | 1,766,162                                      | 1,562,295                    |  | 3,460,822              | 176,501,918                       | 152,112,168                  |
| 2034 | 176,501,918                             | 1,766,162                                      | 1,576,048                    |  | 3,533,841              | 180,225,872                       | 155,836,122                  |
| 2035 | 180,225,872                             | 1,766,162                                      | 1,570,632                    |  | 3,608,428              | 184,029,830                       | 159,640,080                  |
| 2036 | 184,029,830                             | 1,766,162                                      | 1,637,655                    |  | 3,683,167              | 187,841,504                       | 163,451,754                  |
| 2037 | 187,841,504                             | 1,766,162                                      | 1,578,970                    |  | 3,760,574              | 191,789,270                       | 167,399,520                  |
| 2038 | 191,789,270                             | 1,766,162                                      | 1,592,723                    |  | 3,839,254              | 195,801,963                       | 171,412,213                  |
| 2039 | 195,801,963                             | 1,766,162                                      | 1,587,307                    |  | 3,919,616              | 199,900,435                       | 175,510,685                  |
| 2040 | 199,900,435                             | 1,766,162                                      | 1,601,060                    |  | 4,001,311              | 204,066,847                       | 179,677,097                  |
| 2041 | 204,066,847                             | 1,766,162                                      | 185,530                      | 24,389,750                                     | 3,625,155              | 184,882,884                       | 184,882,884                  |
| 2042 | 184,882,884                             | 1,766,162                                      | 85,435                       | 9,298,770                                      | 3,545,297              | 180,810,138                       | 180,810,138                  |
| 2043 | 180,810,138                             |  | 75,851                       | 32,545,695                                     | 2,963,772              | 151,152,364                       | 151,152,364                  |
| 2044 | 151,152,364                             |  | 85,435                       | 58,117,313                                     | 1,858,992              | 94,808,608                        | 94,808,608                   |
| 2045 | 94,808,608                              |  | 75,851                       | 39,519,773                                     | 1,104,260              | 56,317,243                        | 56,317,243                   |
| 2046 | 56,317,243                              |  | 138,704                      | 25,571,618                                     | 612,138                | 31,219,060                        | 31,219,060                   |
| 2047 | 31,219,060                              |  | 75,851                       | 25,571,618                                     | 111,432                | 5,683,022                         | 5,683,022                    |
| 2048 | 5,683,022                               |  | 85,435                       | 20,922,233                                     | -306,493               | -15,631,139                       | -15,631,139                  |
| 2049 | -15,631,139                             |  | 75,851                       | 45,214,424                                     |                        | -60,921,414                       | -60,921,414                  |

Relevant assumptions used in the model to project decommissioning funds through 2049 are as follows:

- Annual payments include the repayment of the \$24,389,750 (88.69% of actual loan balance) Bank of America loan in 2041, the repayment of SCE&G advances in the amount of \$24,292,191 (88.69% of total advances) in 2049, as well as payments for decommissioning totaling \$232,469,253 over the period 2042 - 2049.
- Estimated program costs (net of tax benefits) that are paid by SCE&G or the trust include salary continuation payments to beneficiaries of the insured, loan interest payments, and legal and administrative costs. These costs are shown in the model at 88.69% of total estimated program costs.
- The assumed real rate of return on invested funds is 2%.
- This 2% earnings credit is taken into the presumed dismantlement period, as allowed for licensees that use the 10 CFR 50.75 (b) and (c) formula for decommissioning cost estimates.
- Amounts estimated to be required pursuant to 10 CFR 50.75 (b) and (c) in 2006 dollars are expended over the dismantlement period based upon the timing of expenditure reflected in the cost estimates in our 2006 site-specific study (DECON estimate).

SCE&G does not maintain separate trusts for radiological and non-radiological segments of the decommissioning process. As noted earlier, based upon rate treatment received in our 1993 electric rate order, it could be presumed that 88.69% of after-tax collections (and also 88.69% of the trust fund balances) relate to items included in the NRC's definition of decommissioning.

It should be noted that the above does not consider the effects of presumed income tax deductibility of decommissioning payments in the years in which such payments are made. Additionally, the above Model incorporates the NRC formula-based cost estimates and the DECON (immediate decommissioning) methodology. In contrast, SCE&G currently intends to utilize a deferred decommissioning (SAFSTOR) methodology. Under the SAFSTOR methodology, the site will be placed and maintained for an extended period in a condition that allows for subsequent decontamination to levels that permit release for unrestricted use in 2104. Models prepared using these assumptions and reflecting a site-specific cost study completed in 2006 do not indicate funding deficits.