**Gregory H. Halnon**
*General Manager, Nuclear Plant Operations*
803.345.4007

SCE&G®
A SCANA COMPANY

September 14, 2001
RC-01-0161

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

Gentlemen:

Subject: VIRGIL C. SUMMER NUCLEAR STATION
DOCKET NO. 50/395
OPERATING LICENSE NO. NPF-12
NPDES PERMIT NO. SC0030856 MODIFICATION

South Carolina Electric & Gas Company (SCE&G) hereby submits a copy of a modification to the Virgil C. Summer Nuclear Station National Pollutant Discharge Elimination System (NPDES) permit. The revision was approved by the South Carolina Department of Health and Environmental Control on August 21, 2001 with an effective date of August 1, 2001.

Should you have any questions regarding this submittal, please contact Mr. Charles McKinney at (803) 345-4723.

Very truly yours,

Gregory H. Halnon

CJM/GHH/cm
Attachments

c: N. O. Lorick
N. S. Carns
T. G. Eppink
R. J. White
L. A. Reyes
R. R. Assa
NRC Resident Inspector
K. M. Sutton
W. R. Higgins
RTS (0-C-00-0348)
File (814.07-1)
DMS (RC-01-0161)

L001

D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

**CERTIFIED MAIL/RETURN RECEIPT REQUESTED**

August 21, 2001

Mr. Greg Halnon
General Manager
SCE&G
PO Box 88
Jenkinsville, SC 29065

RECEIVED
AUG 23 2001
NL & OE

Re: Modification to NPDES Permit No. SC0030856
SCE&G/V C Summer Nuclear Station
Fairfield County

Dear Mr. Halnon:

Enclosed are new pages for the modification to the permit for the above-referenced facility. The effective date of the modification is August 1, 2001. The modifications to the permit are as follows:

1. OUTFALL 001 - The limits for Plume Temperature Rise have been eliminated from this outfall.

2. RATIONALE - changed due to the above modification.

Please replace pages in your current permit with these new pages.

This modification is effective on August 1, 2001, provided no appeal for an adjudicatory hearing is made. In the event an appeal is filed, the entire modification is automatically stayed. After the start of the administrative review, any party may request the Administrative Law Judge (ALJ) to lift the automatic stay. The ALJ will then determine which portions of the permit modification, if any, will go into effect before the administrative review has been completed.

If you wish to appeal the staff's decision, you must submit an initial pleading in accordance with Regulation 61-72, Volume 25, S.C. Code of Laws, 1976, as amended. As required by this regulation, the initial pleading must be served on the Board of SCDHEC, ATTN: Clerk of the Board, 2600 Bull Street, Columbia, SC 29201, (803) 898-3300. The submission of the initial appeal will be within the time period if delivered by First Class mail or other parcel delivery service on or before the fifteenth day.

The following elements must, at a minimum, be included within the request:

1. The name of the party requesting the hearing and the issue(s) for which review the hearing is requested;
2. The caption or other information sufficient to identify the permit decision being appealed;
3. The relief requested.

If you have any questions about the technical aspects of this permit, please contact Francile Shelley at (803) 898-4214. Information pertaining to adjudicatory matters may be obtained by contacting the Legal Office, SCDHEC, 2600 Bull Street, Columbia, SC 29201, or by calling them at (803) 898-3350.

Sincerely,

Marion F. Sadler, Jr.

Marion F. Sadler, Jr., Director
Industrial, Agricultural, and Storm Water
Permitting Division

Enclosure

cc: EPA
Lewis Bedenbaugh, Central Midlands
Sandra Hursey, WP Enforcement
Columbia EQC Lab
Christina Lewis, BOW
Vernon Beaty, Lab
NPDES Administration

## A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning on the effective date of this permit and lasting through the expiration date, the permittee is authorized to discharge from outfall(s) serial number(s) 001: once through noncontact cooling water to Monticello Reservoir.

   Such discharge shall be limited and monitored by the permittee as specified below:

| EFFLUENT CHARACTERISTICS | DISCHARGE LIMITATIONS | | | | MONITORING REQUIREMENTS | |
|---|---|---|---|---|---|---|
| | kg/day (lbs/day) | | Other Units (Specify) | | | |
| | Monthly Average | Daily Maximum | Monthly Average | Inst. Maximum | Measurement Frequency | Sample Type |
| Flow | N/A | N/A | MR, MGD | MR, MGD | Continuous | Estimate* |
| Intake Temperature[4b] | N/A | N/A | MR, MGD | MR, MGD | Continuous | Continuous |
| Plume Temperature °C(°F)[4c] | N/A | N/A | 32.2(90) | MR | Continuous | Continuous |
| Discharge Temperature °C(°F)[4a] | N/A | N/A | MR | 45(113) | Continuous | Continuous |

   (*) See Part III, Special Condition 11. MR = Monitor and Report

2. There shall be no discharge of floating solids or visible foam in other than trace amounts; nor, shall the effluent cause a visible sheen on the receiving waters.

3. There shall be no addition of chlorine to the main condenser cooling water.

4. Samples taken in compliance with the monitoring requirements specified above shall be taken at the following locations:

   a. Discharge temperature shall be monitored at the outlet corresponding to an individual unit prior to mixing with the receiving stream.
   b. Intake temperature shall be measured on the inlet side of the main condenser.
   c. Plume temperatures shall be taken at the intake structure of Fairfield Pumped Storage Facility when the Fairfield Pumped Storage Facility is generating.

5. The pH shall not be less than 6.0 standard units nor greater than 8.5 standard units and shall be monitored by grab sample at a frequency of 1/month.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning on the effective date of this Permit and lasting through the expiration date the Permittee is authorized to discharge from outfall(s) serial number(s) 001: once through cooling water to Monticello Reservoir.

| EFFLUENT CHARACTERISTICS | DISCHARGE LIMITATIONS | | MONITORING REQUIREMENTS | |
|---|---|---|---|---|
| | Monthly Average | Daily Maximum | Measurement Frequency | Sample Type |
| [1]Whole Effluent Chronic Toxicity Testing | | | | |
| Percent Increase Mortality | 20% | 50% | 1/Quarter[1] | Grab |
| Percent Reduction in Reproduction | 20% | 50% | 1/Quarter[1] | Grab |

(1) See Part III Special Condition 12 a,b

2. Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): Prior to mixing with the receiving waters.

**Permit Modification**

In the NPDES Permit issued September 29, 1997, Part I.C.1. set forth a schedule for addressing the copper limits at Outfall 014. The copper limits in the renewed permit were more stringent than in the previous permit. The permittee requested a compliance schedule because it appeared the limit would occasionally be exceeded. On September 23, 1997, the permittee submitted a mixing zone study plan that fulfilled Part I.C.1.a.. The plan proposed a study to determine a mixing zone for the copper. The plan was approved September 29, 1997, and carried out in October during the plant outage. The outage allowed a "worst case scenario" for the study. Copper concentration was evaluated at various points around the outfall to determine the spatial extent of the mixing zone. The copper was below detection at all sampling points. Based on the results of the study, a mixing zone will be proposed with copper limits of 0.028 mg/l (ave) and 0.039 mg/l (max).

**Permit Modification dated May 2001**

The thermal component of the discharge from this facility is subject to compliance with South Carolina Water Classifications and Standards (Reg. 61-68). Section D.(8)(a) of the standards stipulates that the water temperature of all Class A waters "shall not be increased more than 5°F(2.8°C) above natural temperature conditions or exceed a maximum of 90°F(32.2°C) as a result of the discharge of heated liquids," unless a different temperature standard has been established, a mixing zone has been established, or a Section 316(a) determination under the Federal Clean Water Act (the Act) has been completed. Section 316(a) of the Act allows the permitting authority to impose alternative and less stringent thermal limitations after demonstration that the water quality standards limitations are more stringent than necessary to assure the protection and propagation of a balanced, indigenous population of shellfish, fish, and wildlife in and on the receiving water.

On April 7, 1975, as a part of permitting activities of the original NPDES permit, SCE&G provided information to support its request that alternative thermal effluent limitations be allowed under Section 316(a) of the Act. In April 30, 1976, a determination was made that the permittee had submitted adequate information to demonstrate that the alternative limitations for the thermal component of the discharge would assure the protection and propagation of a balanced, indigenous population of shellfish, fish and wildlife in and on the Monticello Reservoir. The alternate maximum discharge temperature for Outfall 001 is 45°C(113°F). A maximum thermal plume temperature of 32.2°C(90°F) and temperature rise of 1.66°C(3.0°F) is also imposed.

On July 1, 1984 a continuation of the 316(a) variance was allowed by the reissuance of the NPDES permit. On January 3, 1989, a request to continue the variance was included as part of the application for reissuance of the NPDES Permit. To support the request, the permittee has indicated there has been no change in facility operation and no change in the biological community. A tentative determination was made that continuation of the 316(a) variance was appropiate in the reissuance of this permit.

On April 3, 1997, the permittee submitted an application for reissuance of the permit. A request to continue the 316(a) variance was included as part of the application. On June 19, 1997, the Department determined that continuance was appropriate.

On December 4, 2000, the permittee requested that the requirement to monitor the plume temperature rise be eliminated from Outfall 001. Since the requirement to monitor the plume temperature rise was added to the permit, there have been no observed adverse impacts to the aquatic environment. Most environmental impacts, if any were to occur, would be observed at Parr Reservoir on the Broad River. DMR data from 1993 until present shows that there have

been no violations of the 3°F plume temperature rise. The Department therefore agrees that there is no useful data being generated by the continuous monitoring at Monticello Resevoir and the request to remove plume temperature rise monitoring requirements from the permit is granted.