

July 12, 1989

Docket No. 50-395

Mr. O. S. Bradham  
Vice President, Nuclear Operations  
South Carolina Electric & Gas Company  
Virgil C. Summer Nuclear Station  
Post Office Box 88  
Jenkinsville, South Carolina 29065

Dear Mr. Bradham:

SUBJECT: CORRECTIONS TO AMENDMENT NOS. 76 AND 77 REGARDING CONTAINMENT  
STRUCTURAL INTEGRITY AND EMERGENCY DIESEL GENERATORS -  
VIRGIL C. SUMMER NUCLEAR STATION (TAC NOS. 62803 and 68644)

The Technical Specification (TS) pages to Amendment No. 76 to Virgil C. Summer Nuclear Station License NPF-12, were transmitted to you by letter dated May 22, 1989. Page 3/4 6-8 was omitted when the proposed change was denied. The page should have been included as only a portion of the proposed change was denied. That portion which was not denied was the removal of the reference to Tables that were deleted by this amendment. Page 3/4 6-9 had a reference to a deleted table, the reference was not deleted but should have been.

Amendment No. 77 was transmitted to you by letter dated May 30, 1989. This transmittal contained a typographical error on page 3/4 8-1. The second word under ACTION item b should be "one" instead of on.

The corrected pages for Amendment Nos. 76 and 77 are included with this letter.

Sincerely,

Original Signed By:

John J. Hayes, Project Manager  
Project Directorate II-1  
Division of Reactor Projects -I/II  
Office of Nuclear Reactor Regulation

Enclosures:  
As stated

c w/encls:  
See next page

LA: PDII-1  
PAndersen  
7/11/89

PM: PDII-1  
JHayes: sw  
7/11/89

D: PDII-1  
EAdensam  
7/12/89

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PDR ADOCK 05000395  
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CPH

Mr. O. S. Bradham  
South Carolina Electric & Gas Company

Virgil C. Summer Nuclear Station

cc:

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DISTRIBUTION

Docket File

NRC PDR

Local PDR

PDII-1 Reading

S. Varga	14-E-4
G. Lainas	14-H-3
E. Adensam	14-B-20
P. Anderson	14-B-20
J. Hayes	14-B-20
OGC	15-B-18
D. Hagan	MNBB-3302
E. Jordan	MNBB-3302
B. Grimes	9-A-2
T. Meek (8)	P1-137
Wanda Jones	P-130A
E. Butcher	11-F-23
ACRS (10)	P-315
GPA/PA	17-F-2
ARM/LFMB	AR-2015
SUMMER FILE	

ATTACHMENT TO CORRECTION LETTER FOR AMENDMENTS 76 AND 77

TO FACILITY OPERATING LICENSE NO. NPF-12

VIRGIL C. SUMMER NUCLEAR STATION

DOCKET NO. 50-395

Replace the following pages of the Appendix "A" Technical Specifications with the enclosed pages. The revised pages are identified by amendment number and contain vertical lines indicating the areas of change. Corresponding overleaf pages are also provided to maintain document completeness.

Remove Pages

3/4 6-8  
3/4 6-9  
3/4 8-1

Insert Pages

3/4 6-8  
3/4 6-9  
3/4 8-1

*RIWL*

## CONTAINMENT SYSTEMS

### CONTAINMENT STRUCTURAL INTEGRITY

#### LIMITING CONDITION FOR OPERATION

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3.6.1.6 The structural integrity of the containment shall be maintained at a level consistent with the acceptance criteria in Specification 4.6.1.6.

APPLICABILITY: MODES 1, 2, 3, and 4.

#### ACTION:

- a. With the structural integrity of the containment not conforming to the requirements of Specification 4.6.1.6.1.b, perform an engineering evaluation of the containment to demonstrate the acceptability of containment tendons within 72 hours; otherwise, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- b. With the structural integrity of the containment otherwise not conforming to the requirements of Specification 4.6.1.6, in lieu of any other report required by Specification 6.9.1, prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within 30 days after completion of the inspection describing the tendon condition, the condition of the concrete (especially at tendon anchorages), the inspection procedures, the tolerances on cracking, and the corrective actions taken.

#### SURVEILLANCE REQUIREMENTS

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4.6.1.6.1 The structural integrity of the containment tendons shall be demonstrated at the end of one, three and five years following the initial containment structural integrity test and at five year intervals thereafter. The structural integrity of the tendons shall be demonstrated by:

- a. Determining that a representative sample\* of at least 15 tendons (4 dome, 5 vertical, and 6 hoop) each has a lift off force of greater than or equal to 95% of its Base Value. If the lift off force of a selected tendon in a group lies between the 95% Base Value and 90% of the Base Value, one tendon on each side of this tendon shall be checked for its lift off force. If the lift off forces of the adjacent tendons are greater than or equal to 95% of their Base Values, the single deficiency shall be considered unique and acceptable. For tendon(s)

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\*For each inspection, the tendons shall be selected on a random but representative basis so that the sample group will change somewhat for each inspection; however, to develop a history of tendon performance and to correlate the observed data, one tendon from each group (dome, vertical, and hoop) may be kept unchanged after the initial selection.

## CONTAINMENT SYSTEMS

### SURVEILLANCE REQUIREMENTS (Continued)

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not conforming to these requirements, a determination shall be made as to the cause of the occurrence and the tendon(s) shall be restored to the required level of integrity.

If the lift-off force of the selected tendon lies below 90% of its Base Value, the tendon shall be completely detensioned and a determination made as to the cause of the occurrence.

- b. Determining that the average of the Normalized Lift Off Forces for each tendon group (vertical, dome and hoop) is greater than or equal to the minimum required average tendon force for the group. The minimum required average tendon force is 1160 kips for vertical tendons, 1063 kips for dome tendons, and 1000 kips for hoop tendons. The Normalized Lift Off Force for a tendon is obtained by adding the Normalizing Factor to the lift off force. Failure to comply with this requirement may be evidence of abnormal degradation of the containment structure.

If the Normalized Lift-Off Force of any tendon is less than the applicable minimum required average tendon force, an investigation shall be conducted to determine the cause and extent of occurrence. This investigation shall include as a minimum the measurement of lift-off forces of tendons adjacent to the deficient tendon to determine if the average of the tendon lift-off forces in this region of the containment is equal to or greater than the minimum required average tendon force. Failure to comply with this requirement may be evidence of abnormal degradation of the containment structure.

- c. Detensioning one tendon in each group (dome, vertical and hoop) from the representative sample. One wire shall be removed from each detensioned tendon and examined to determine:
1. That over the entire length of the tendon wire, the wire has not undergone corrosion, cracks or damage to the extent that an abnormal condition is indicated.
  2. A minimum tensile strength value of 240,000 psi (guaranteed ultimate strength of the tendon material) for at least three wire samples (one from each end and one at mid-length) cut from each removed wire.
- d. Determining for each tendon in the above representative tendon sample, that an analysis of a sample of the sheathing filler grease is within the following limits:
- |                  |                         |
|------------------|-------------------------|
| 1. Grease Voids  | ≤ 5% of net duct volume |
| 2. Chlorides     | ≤ 10 PPM                |
| 3. Sulphides     | ≤ 10 PPM                |
| 4. Nitrates      | ≤ 10 PPM                |
| 5. Water Content | ≤ 10% by weight         |

### 3/4.8 ELECTRICAL POWER SYSTEMS

#### 3/4.8.1 A.C. SOURCES

##### OPERATING

##### LIMITING CONDITION FOR OPERATION

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3.8.1.1 As a minimum, the following A.C. electrical power sources shall be OPERABLE:

- a. Two physically independent circuits between the offsite transmission network and the onsite Class 1E distribution system, and
- b. Two separate and independent Emergency Diesel Generators (EDG), each with:
  1. A separate day fuel tank containing a minimum volume of 300 gallons of fuel,
  2. A separate fuel storage system containing a minimum volume of 42,500 gallons of fuel, and
  3. A separate fuel transfer pump.

APPLICABILITY: MODES 1, 2, 3 and 4.

##### ACTION:

- a. With one offsite circuit of 3.8.1.1.a inoperable:
  1. Demonstrate the OPERABILITY of the remaining offsite A.C. sources by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter, and
  2. If either EDG has not been successfully tested within the past 24 hours, demonstrate its OPERABILITY by performing Surveillance Requirement 4.8.1.1.2.a.3 separately for each such EDG within 24 hours unless the diesel is already operating, and
  3. Restore the offsite circuit to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and COLD SHUTDOWN within the following 30 hours.
- b. With one EDG of 3.8.1.1.b inoperable:
  1. Demonstrate the OPERABILITY of the A.C. offsite sources by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter, and
  2. If the EDG became inoperable due to any cause other than preplanned preventive maintenance or testing, demonstrate the OPERABILITY of the remaining EDG by performing Surveillance Requirements 4.8.1.1.2.a.3 within 24 hours\*, and

\*This test is required to be completed regardless of when the inoperable EDG is restored to OPERABILITY.