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February 17, 1993  
Refer to: RC-93-0043

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

Gentlemen:

Subject: VIRGIL C. SUMMER NUCLEAR STATION  
DOCKET NO. 50/395  
OPERATING LICENSE NO. NPF-12  
RESPONSE TO NPC GENERIC LETTER 92-08  
THERMO-LAG 330-1 FIRE BARRIERS

South Carolina Electric & Gas Company submits the attached pursuant to NRC Generic Letter 92-08.

I declare that the statements and matters set forth herein are true and correct to the best of my knowledge, information, and belief.

Should you have any questions, please call at your convenience.

Very truly yours,

John L. Skolds

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ADD 1

SOUTH CAROLINA ELECTRIC & GAS COMPANY  
FIRE BARRIER REPORT PER GENERIC LETTER 92-08

Thermo-Lag 330 barrier material is used in five locations at Virgil C. Summer Nuclear Station. Each installation is designed to provide 1-hour fire barriers to meet the separation requirements of 10 CFR 50, Appendix R.

Thermo-Lag Panels are used to protect Cable Tray 3088. This cable tray is 18 inches wide and supplies various A-Train loads. Table B (attached) identifies the affected loads.

Thermo-Lag preshaped conduit sections are used to protect a 3 inch conduit which supplies DC power to the Main Control Board.

Thermo-Lag Panels and a steel frame are used to enclose two conduits which contained Nuclear Instrument signal cables. This installation is identified by Thermal Science, Inc., as a Self Supported Structure. Due to its size and similarities in construction, this barrier may be susceptible to the same type of failures as the large cable trays.

Thermo-Lag Panels and Flexi-Blanket are used to protect Unistrut and threaded rods which suspend a M-Board fire barrier over the "A" Service Water Booster Pump. This is an upgrade to a pre-existing fire barrier previously reviewed by the NRC.

Thermo-Lag preshaped conduit sections are used to protect 2 conduits which provide "A" Train power to the "C" chiller. This barrier is installed to maintain swing component capability. Initially, compensatory actions were established for this fire barrier. However, based on the definition "small diameter conduits" received from the NRC and NUMARC meeting of July 7, 1992, compensatory actions were suspended for this area. Compensatory actions were re-initiated upon receipt of Supplement 1 on August 31, 1992.

The location, type and purpose of all Thermo-Lag installations are identified on Table A (attached). A roving fire watch was established on June 25, 1992, to tour each room containing a Thermo-Lag fire barrier. Station procedures require an inspection of each room on an hourly basis, provided the fire detection capability exists. In the event of a loss of fire detection capability, a continuous fire watch will be established in each area.

The following is provided in response to fire endurance test and installed fire barrier configurations:

SCE&G has not conducted any fire endurance tests.

Fire barrier configurations at VCSNS were installed in accordance with the manufactures recommendations and approved procedures.

SCE&G will continue to work with Thermal Science, Inc., NUMARC, and the industry to develop a course of action to ensure the fire barriers are capable of performing their design function. Presently NUMARC has scheduled for the Summer of 1993 a series of tests which will represent materials, workmanship, method of assembly, dimensions, and configurations for which fire rated assemblies are utilized by the industry. It is anticipated at this time that the results of these tests will bound those configurations used at VCSNS. Should corrective measures be required as the result of this testing program, the options available will be evaluated on a case by case basis. This would include current NRC concerns regarding ampacity and cable derating

TABLE A  
THERMO-LAG FIRE BARRIERS

FIRE BARRIER ID#	TYPE	SIZE	LOCATION	FUNCTION
24A-TW	SSS*	8 X 13"	CB 36-03	Separation of NI-31 and NI-32 signal cables from NI-33 power cable.
58-TW	Cable Tray	18"	IB 12-02S IB 36-02	Protection of Cable Tray 3088, (see Table B for components supplied).
59-TW	Conduit	4"	IB 26-01	Protection of "C" Chiller, A-Train power supply.
74-TW	Conduit	3"	CB 12-04	Protection of DC power to Main Control Board.
76-TW	Panels & Flexi- Blanket	N/A	IB 12-02S	Protection of supports for M-Board fire barrier over "A" Service Water Booster Pump.

SSS\*: Self Supported Structure made from prefabricated panels.

CB: Control Building

IB: Intermediate Building

TABLE B  
 Components Supplied Through Cable Tray 3088:

Equipment Number	Name	Safety Class
XFN0038A	Battery & Charging Room Air Handling Unit "A" Supply Fan	(NNS)
XFN0039A	Battery Room Exhaust Fan "A"	(NNS)
XES2001A	Speed Switch, Component Cooling Pump "A"	(SR)
XES2001C	Speed Switch, Component Cooling Pump "C"	(SR)
XPN7200A	Control Room Evacuation Panel	(SR)
XSW0001	Reactor Trip Switchgear	(SR)
XCA0001A	Power Control Rod Groups 1A, 1C, Shutdown Group 1A	(NNS)
XCX5201	Diesel Generator "A" Control Cubicle	(SR)
XPN5503	Diesel Generator "A" Relay & Terminal Panel	(SR)
XES0006	Diesel Generator "A" Starter DC Fuel Oil Pump	(SR)
XEX4201	Diesel Generator "A" Exciter Regulator Cubicle	(SR)
XPN5248	Relay & Isolation Fuse Panel	(SR)
XBC1A	DC Distribution Bus 1A Battery Charger	(SR)
XBC1A-1B	DC Distribution Bus 1A-1B Backup Battery Charger	(SR)
XPN5259	Isolation Fuse Panel	(SR)
XSW1DA	7.2 KV Switchgear, Bus 1DA	(SR)
XSW1DA1	ESF 480 Volt Unit Substation, Bus 1DA1	(SR)
XSW1DA2	ESF 480 Volt Unit Substation, Bus 1DA2	(SR)
XPN6011	Reactor Protection Under Frequency & Under Voltage Panel 1	(SR)
XPN7106	Main Control Board Termination Cabinet	(SR)