

October 6, 1995

Mr. Gary J. Taylor
Vice President, Nuclear Operations
South Carolina Electric & Gas Company
Virgil C. Summer Nuclear Station
Post Office Box 88
Jenkinsville, South Carolina 29065

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION REGARDING GENERIC LETTER 92-08,
ISSUED PURSUANT TO 10 CFR 50.54(f), VIRGIL C. SUMMER NUCLEAR
STATION, UNIT 1 (TAC NO. M85610)

Dear Mr. Taylor:

The staff has reviewed South Carolina Electric & Gas Company's (SCE&G) responses of December 21, 1994, and March 23, 1995, to the requests for additional information of September 23, 1994, and December 23, 1994, regarding Generic Letter 92-08, "Thermo-Lag 330-1 Fire Barriers." Based on our review of SCE&G's letters, the staff has additional plant specific questions.

Therefore, you are required, pursuant to 10 CFR 50.54(f), to submit a written response, under oath or affirmation, to the questions in the attached request for additional information. Retain on site all information and documentation used to prepare your response; these may be reviewed during future NRC audits or inspections.

As agreed to in an October 3, 1995 phone call with your staff, your response to the attached questions is requested by March 31, 1996. This requirement affects nine or fewer respondents and therefore is not subject to the Office of Management and Budget review under P.L. 96-511.

Sincerely,
Original signed by
Stephen Dembek, Project Manager
Project Directorate II-3
Division of Reactor Projects I/II
Office of Nuclear Reactor Regulation

Docket No. 50-395

Enclosure: Request for Additional Information

cc w/encl: See next page

DISTRIBUTION J. Zwolinski
Docket File OGC
PUBLIC ACRS
S. Varga E. Merschhoff
M. Gamberoni R. Jenkins

DOCUMENT NAME: G:\SUM85610.RA2

To receive a copy of this document, indicate in the box: "C" = Copy without attachment/enclosure "E" = Copy with attachment/enclosure "N" = No copy

OFFICE	PDII-3/LA	PDII-3/PM	E PDII-3/D	C
NAME	Clayton <i>BC</i>	SDembek <i>S. Dembek</i>	FHebdon <i>H</i>	
DATE	10/6/95	10/6/95	10/6/95	10/ /95

OFFICIAL RECORD COPY

9510120057 951006
PDR ADOCK 05000395
P PDR

NRC FILE CENTER COPY

DF011

FOLLOWUP REQUEST FOR ADDITIONAL INFORMATION REGARDING

GENERIC LETTER 92-08

"THERMO-LAG 330-1 FIRE BARRIERS"

VIRGIL C. SUMMER NUCLEAR STATION, UNIT 1

DOCKET NO. 50-395

1.0 REQUEST FOR ADDITIONAL INFORMATION (RAI) OF SEPTEMBER 23, 1994

In the RAI of September 23, 1994, the NRC staff requested information regarding important barrier parameters, Thermo-Lag barriers outside the scope of the Nuclear Energy Institute (NEI) program, ampacity derating, alternatives, and schedules.

In a December 21, 1994 letter, the South Carolina Electric and Gas Company (SCE&G) asserted that the absence of a NEI ampacity test program or test reports will not affect SCE&G's ability to achieve resolution of the Thermo-Lag 330-1 fire endurance issues. Except for Cable Tray 3088, SCE&G expects that the remaining circuits protected by Thermo-Lag 330-1 fire barrier will have sufficient margin to allow for the values reported in the Comanche Peak Steam Electric Station (CPSES) ampacity derating test report with some modifications. SCE&G considered the single barrier enclosed tray (i.e., Cable Tray 3088) as the only raceway with potential ampacity concerns.

During a public meeting on March 14, 1995, with the licensees for the four lead plants for the resolution of Thermo-Lag issues, the staff responded to the question, "Will the resolution of the ampacity derating concern be deferred until agreement is reached on the appropriate testing protocol (i.e., IEEE P848)?" The staff reiterated its position, which was previously stated in the September 1994 RAI, that the ampacity derating concern could be resolved independently of the fire endurance concerns. After a review of the tests performed under the draft IEEE standard P848, the staff transmitted comments which were designated to ensure the repeatability of test results to the IEEE working group responsible for the test procedure. At this time the staff is not aware of any NEI initiative to address the ampacity derating issue. SCE&G is requested to submit its ampacity derating evaluations, including any applicable test reports, in order to provide an adequate response to Generic Letter 92-08 reporting requirement 2(c).

2.0 REQUEST FOR ADDITIONAL INFORMATION OF DECEMBER 23, 1994

In a December 23, 1994 letter, the staff requested information describing the examinations and inspections that will be performed to obtain the important barrier parameters for the Thermo-Lag configurations installed at Virgil C. Summer Nuclear Station.

SCE&G responded to the staff's request in a March 23, 1995 letter. However, SCE&G did not provide any further information on the disposition of Cable Tray 3088 except to state that replacement options are being considered for final resolution. SCE&G also identified the 1-hour barrier enclosing Conduit XX-7177A as a candidate for retention and/or modification. SCE&G stated that in the event that the 1-hour barrier is retained and/or modified, the barrier will be restored to operability without conclusive determination of actual ampacity derating values. The licensee asserted that the existing derating margin (less than 62 percent) is sufficient to ensure that there will be no long-term cable life issue. The licensee will readdress the ampacity derating issue for Conduit XX-7177A if future industry tests indicate that the present margin is insufficient.

On May 18, 1995, members of the NRC staff held a telephone conference call with NEI representatives on ampacity derating issues for Thermo-Lag fire barriers. The staff indicated that the latest IEEE P848 draft procedure can be used by licensees or NEI as the basis for an ampacity derating test program. The memorandum dated May 22, 1995, which documents the subject telephone conference meeting, is attached for your information. In addition, a copy of the CPSES Safety Evaluation dated June 14, 1995, was sent to those licensees who rely on Thermo-Lag installations.

In its submittal of December 21, 1994, SCE&G referred to a site specific determination regarding the acceptability of plant ampacity margins. If this evaluation represents SCE&G's final determination of ampacity derating parameters for Thermo-Lag fire barriers, please forward a copy of the subject evaluation for staff review. The statement in SCE&G's submittal of March 23, 1995, which denotes that no conclusive determination of the ampacity design parameter will be made for Conduit XX-7177A is considered non-responsive. Given that there are no unresolved technical issues, the licensee is requested to provide its site-specific schedule and plans for the resolution of the ampacity derating issue for Thermo-Lag fire barriers.

The staff recognizes that most licensees may have excess ampacity margin using valid test data. However, those licensees who utilize industry test data must evaluate whether installed configurations are representative of the tested configurations. The subject evaluations should also analyze any deviations of the installed configuration with respect to the test configuration. SCE&G did not indicate that CPSES Unit 2 Thermo-Lag fire barrier configurations were representative of the Virgil C. Summer Nuclear Station configurations.

Finally, the staff expects that SCE&G will submit, in conjunction with the resolution of the fire endurance issues, a description of the analytical methodology including typical calculations which will be used to determine the ampacity derating parameters for the Thermo-Lag fire barriers that are installed at the Virgil C. Summer Nuclear Station.

Attachment: NRC Memorandum
dtd 5/22/95

May 22, 1995

NOTE TO: Brian W. Sheron, Director, DE, NRR

FROM: Carl H. Berlinger, Chief, EELB, DE, NRR

SUBJECT: MEMORANDUM OF RECORD

On May 18, 1995, members of the NRC staff (B. Sheron, C. Berlinger, P. Gill, M. Gamberoni and R. Jenkins) held a telephone conference call with Mr. Alex Marion and Mr. Biff Bradley of the Nuclear Energy Institute (NEI) on ampacity derating issues for Thermo-Lag fire barriers. Mr. Marion contacted the staff regarding two topics: (1) Status of the Safety Evaluation (SE) on the Comanche Peak Steam Electric Station (CPSES), Unit 2 Ampacity Derating Test Program; and (2) Staff Acceptance of the IEEE Standard P848, "Procedure for the Determination of the Ampacity Derating of Fire Protected Cables."

Dr. Berlinger stated that the subject SE for CPSES 2 had been completed and we expected that it will be transmitted to the licensee within the next two weeks. Dr. Berlinger agreed to notify Mr. Marion by phone after the SE had been issued by the staff. Due to potential generic applications the staff will provide a copy of the CPSES, Unit 2 SE to licensees with Thermo-Lag fire barriers.

The staff has been interfacing with the IEEE Task Force responsible for IEEE P848 over the last 2 years to improve the subject procedure. This effort has resulted in recent revisions to the subject procedure which addressed the majority of the concerns raised by EELB (reference: Letter dated 10/13/94 from C. Berlinger to A. K. Gwal). Although not all of the concerns were addressed by the IEEE Task Force Dr. Berlinger indicated that the latest IEEE P848 draft procedure can be used by licensees or NEI as the basis for an ampacity derating test program. The latest procedure revision (Draft 16) addresses the major test concerns regarding inductive heating and conduit surface emissivities effects.

The staff emphasized that licensees should submit the actual test procedures or plans to the staff for comment. After discussion of the various options to develop a generic test program NEI agreed to review the CPSES 2 SE and then contact the staff as necessary for further discussions or questions on this matter.

cc: Alex Marion, NEI

CONTACT: Ronaldo Jenkins, EELB/DE
415-2985

DISTRIBUTION

GCLainas, NRR
KWest, NRR
EELB R/F

ATHadani, NRR
MGamberoni, NRR
SPLB TSI File

Document Name: G:\SHARED\FY95NEI.NOT

To receive a copy of this document, indicate in the box C=Copy w/o attachment/enclosure E=Copy with attachment/enclosure N = No copy

OFFICE	EELB:DE:NRR	C	SC/EELB:DE:NRR	C	C/EELB:DE:NRR	C
NAME	RJenkins:nk		PGill		CHBerlinger	
DATE	05/19/95		05/19/95		05/22/95	

OFFICIAL RECORD COPY

950914008

Mr. Gary J. Taylor
South Carolina Electric & Gas Company

VIRGIL C. SUMMER NUCLEAR STATION

cc:

Mr. R. J. White
Nuclear Coordinator
S.C. Public Service Authority
c/o Virgil C. Summer Nuclear Station
Post Office Box 88, Mail Code 802
Jenkinsville, South Carolina 29065

J. B. Knotts, Jr., Esquire
Winston & Strawn Law Firm
1400 L Street, N.W.
Washington, D.C. 20005-3502

Resident Inspector/Summer NPS
c/o U.S. Nuclear Regulatory Commission
Route 1, Box 64
Jenkinsville, South Carolina 29065

Regional Administrator, Region II
U.S. Nuclear Regulatory Commission
101 Marietta St., N.W., Ste. 2900
Atlanta, Georgia 30323

Chairman, Fairfield County Council
Drawer 60
Winnsboro, South Carolina 29180

Mr. Virgil R. Autry
Director of Radioactive Waste Management
Bureau of Solid & Hazardous Waste Management
Department of Health & Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Mr. R. M. Fowlkes, Manager
Nuclear Licensing & Operating Experience
South Carolina Electric & Gas Company
Virgil C. Summer Nuclear Station
Post Office Box 88
Jenkinsville, South Carolina 29065