



PECO NUCLEAR

A Division of PECO Energy

PECO Energy Company
Nuclear Group Headquarters
900 Chestnut Street
Wilmington, PA 19801-5001

May 2, 1996

Docket Nos. 50-277
50-278
50-352
50-353

License Nos. DPR-44
DPR-56
NPF-39
NPF-85

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

Subject: Peach Bottom Atomic Power Station, Units 2 and 3,
Limerick Generating Station, Units 1 and 2,
Request for Additional Information Regarding
Generic Letter 92-08, "Thermo-Lag 330-1 Fire Barriers"

- References:
- 1) Letter from G. A. Hunger, Jr. to USNRC
Document Control Desk dated April 16, 1993
 - 2) Letter from G. A. Hunger, Jr. to USNRC
Document Control Desk dated December 29, 1993
 - 3) Letter from G. A. Hunger, Jr. to USNRC
Document Control Desk dated February 4, 1994
 - 4) Letter from G. A. Hunger, Jr. to USNRC
Document Control Desk dated December 19, 1994
 - 5) Letter from G. A. Hunger, Jr. to USNRC
Document Control Desk dated March 29, 1995
 - 6) Letter from G. A. Hunger, Jr. to USNRC
Document Control Desk dated August 2, 1995

Dear Sirs:

The subject request for additional information (RAI) regarding Generic Letter (GL) 92-08, "Thermo-Lag 330-1 Fire Barriers," dated February 29, 1996, requested that PECO Energy Company, (PECO Energy), respond within 60 days of the receipt of the letter with additional information regarding Thermo-Lag 330-1 fire barrier systems. PECO Energy had previously responded to the GL by references 1 through 6.

9605130445 960502
PDR ADOCK 05000277
P PDR

Handwritten signature/initials

The RAI requested that PECO Energy provide site-specific schedules and plans for the resolution of the ampacity derating issue for Thermo-Lag fire barriers, and submit any test procedures, or alternatively, 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 PBAPS and LGS. The RAI requested that if an NEI test program or analysis is expected to be used, provide specific program details, and incorporate any input by NEI into the resolution schedule.

Response

The PECO Energy methodology for resolving the Thermo-Lag 330-1 ampacity issue is incorporated in our overall Thermo-Lag resolution program. The purpose of the Thermo-Lag resolution program is to minimize our reliance on Thermo-Lag by identifying the minimum number of safe shutdown cables required to be protected. This population of cables has been identified. These cables will be addressed as detailed in the previous submittals. Cable ampacity derating is an issue for all of the power cables that are encapsulated with Thermo-Lag 330-1, and will be addressed as detailed below.

The PECO Energy methodology for resolving power cable ampacity derating concerns due to cable encapsulation with Thermo-Lag 330-1 will identify from the industry ampacity derating test programs specific tests that bound the PECO Energy Thermo-Lag configurations. A bounding Thermo-Lag assembly evaluation will be used to determine a cable ampacity derating factor (ADF_{test}) for each PECO Energy assembly. If bounding tests are not available from the industry test programs, PECO Energy will perform ampacity derating tests. A standard (IEEE Standard P848, "Procedure for the Determination of the Ampacity Derating of Fire Protected Cables.", Draft 16) has been developed and accepted for use by the NRC. PECO Energy intends to use this Draft 16 of the standard for any ampacity tests which we perform. Subsequent revisions to this standard will be reviewed by PECO Energy, and may be used for performing the tests.

The methodology will then identify the baseline cable ampacity (Amp_{base}) from either NFPA 70, National Electric Code (NEC), Table 3.10, or valid, vendor-supplied, cable data. The required ampacity carrying capability of the cable (Amp_{load}) will be determined from PECO Energy controlled calculations. The maximum acceptable ampacity derating factor (ADF_{max}) will be calculated by:

$$(Amp_{base} - Amp_{load}) / Amp_{base} = ADF_{max}$$

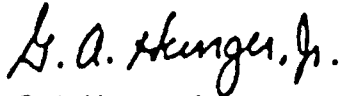
This ADF_{max} value will be compared to the ADF_{test} value from the test results, and the assembly will be accepted if the ADF_{max} is greater than the ADF_{test} value.

The ampacity derating evaluation will be performed in conjunction with the Thermo-Lag assembly fire endurance qualification evaluation. This work is scheduled to be completed by December, 1997, for Peach Bottom Atomic Power Station, Units 2 and 3 and Limerick Generating Station, Units 1 and 2.

May 2, 1996
Page 3

If you have any questions please feel free to contact us.

Very truly yours,



G. A. Hunger, Jr.,
Director - Licensing

Attachment

cc: T. T. Martin, Administrator, Region I, USNRC
W. L. Schmidt, USNRC Senior Resident Inspector, PBAPS
N. S. Perry, USNRC Senior Resident Inspector, LGS

COMMONWEALTH OF PENNSYLVANIA

:

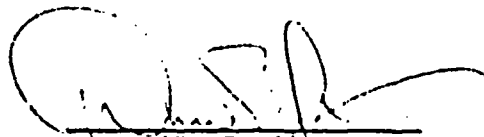
ss.

COUNTY OF CHESTER

:

D. B. Fetters, being first duly sworn, deposes and says:

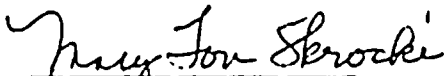
That he is Vice President of PECO Energy Company; that he has read the attached response to the Request for Additional Information regarding Generic Letter 92-08 for Peach Bottom Facility Operating Licenses DPR-44 and DPR-56, and Limerick Facility Operating Licenses NPF-39 and NPF-85, and knows the contents thereof; and that the statements and matters set forth therein are true and correct to the best of his knowledge, information and belief.


Vice President

Subscribed and sworn to

before me this 27th day

of May 1996.


Notary Public

Notarial Seal
Mary Lou Skrocki, Notary Public
Tredyffrin Twp., Chester County
Commission Expires May 17, 1998