

Duquesne Light Company

Beaver Valley Power Station
P.O. Box 4
Shippingport, PA 15077-0004

SUSHIL C. JAIN
Division Vice President
Nuclear Services
Nuclear Power Division

February 14, 1997

(412) 393-5512
Fax (412) 643-8069

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555-0001

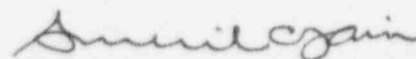
**Subject: Beaver Valley Power Station, Unit No. 2
Docket No. 50-412, License No. NPF-73
Schedule for Completion -
Thermo-Lag 330-1 Fire Barrier Issues**

Our previous submittal of December 27, 1996, identified that a schedule for completion of the Thermo-Lag fire barrier issues at Beaver Valley Power Station (BVPS) Unit 2 would be provided by February 14, 1997. Based on a telecon with NRC staff on January 14, 1997, a progress summary of our efforts to-date was also requested by the NRC. Enclosed as Attachment 1 is a status summary of our efforts to date and a schedule for completion of the Thermo-Lag fire barrier activities at BVPS Unit 2.

In summary, we project that the hardware modifications, utilizing additional Thermo-Lag material for upgrading the electrical conduit raceways required for post-fire safe shutdown capability, will be completed by August 29, 1997. The engineering analysis efforts and the ampacity evaluations associated with the Thermo-Lag installations will be completed by September 29, 1997. If any unforeseen circumstances arise that necessitate a change in this schedule, we will notify you at that time.

As requested in Generic Letter 92-08, confirmation in writing will be provided upon completion of the actions noted above. In the interim, fire watch patrols will be maintained for the affected areas until the Thermo-Lag fire barrier issues have been resolved. Should you have any questions concerning this matter, please contact Mr. Roy K. Brosi, Manager, Nuclear Safety at (412) 393-5210.

Sincerely,



Sushil C. Jain

c: Mr. H. J. Miller, NRC Region I Administrator
Mr. D. M. Kern, Sr. Resident Inspector
Mr. D. S. Brinkman, Sr. Project Manager



9702200344 970214
PDR ADDCK 05000412
P PDR

110
A029

ATTACHMENT 1

Progress Summary of Thermo-Lag 330-1 Fire Barrier Issues at BVPS Unit 2

Thermo-Lag 330-1 fire barrier systems are utilized at BVPS Unit 2 for fire protection of safe shutdown circuits on electrical conduit raceways, boxed enclosures (electrical junction boxes and pull boxes) and their associated supports. Thermo-Lag is not used to protect cable trays at BVPS Unit 2. A different product, 3M Interam fire protection system, is used for protection of the cable trays.

Based on the results of industry testing, the boxed enclosures utilizing Thermo-Lag 330-1 fire barrier systems were upgraded or justified to meet the required 1-hour fire resistance capability. These upgrades, utilizing additional Thermo-Lag trowel grade material and stress skin along the butted seams, were completed during the third quarter of 1996.

Currently, the smaller size conduit raceways (< 3" in diameter) are being upgraded due to a change in methodology for compliance with the Thermo-Lag fire barriers issue. The upgrades, which utilize an additional layer of Thermo-Lag pre-formed half shells, are being performed due to recent information from the industry and NRC that the use of fire modeling would not be an acceptable alternative for resolving the Thermo-Lag fire barrier issues. Approximately 400 feet of 1 1/2" and 2" diameter conduit raceways are being upgraded to meet the required 1-hour fire resistance capability. This effort is approximately 65% complete at this time, and is expected to be completed by March 31, 1997.

Duquesne Light Company has been actively pursuing a resolution to the Thermo-Lag fire barrier issues for BVPS Unit 2. As such, the larger size conduit raceways (3" to 6" in diameter) encapsulated with Thermo-Lag 330-1 fire barrier systems were in the process of being evaluated by Duquesne Light Company in comparison to industry testing which had successfully qualified as a 1-hour fire rated assembly. One of the parameters previously assumed in the engineering evaluations was the installation method of pre-buttering of the joints with trowel grade material vs. post-buttering after the assembly is configured. In December of 1996, during the upgrade project for small size conduits, a 2" diameter conduit was discovered to be void of the trowel grade material along the seam of the pre-formed half shell installation. Acceptable industry testing on 3" diameter and larger sized conduits has been based on utilizing pre-buttered joints. Industry testing of post-buttered joints on smaller sized conduits (two tests of 2" diameter conduits) had mixed results. The discovery that post-buttering was used on certain installations at BVPS Unit 2 had a direct impact on the acceptability of the engineering analysis efforts that were being developed for justification of the as-installed 3" to 6" diameter conduit Thermo-Lag configurations.

A conservative management decision was made to assume worst case post-buttered assemblies and proceed to upgrade the remaining (3" to 6" in diameter) conduits encapsulated with Thermo-Lag 330-1 fire barrier systems which are credited for post-fire

Attachment 1
Progress Summary of Thermo-Lag 330-1
Fire Barrier Issues at BVPS Unit 2

safe shutdown capability. This decision necessitated the need for a scope increase and an extension of the schedule for performing the necessary upgrades for the larger size conduits encapsulated with Thermo-Lag (approximately 900 feet). These upgrades are expected to be completed by August 29, 1997. If unforeseen circumstances arise during the course of upgrading the Thermo-Lag installations which necessitate a change in our schedule, we will notify you at that time.

Our objective is to ensure a 1-hour fire rated barrier utilizing Thermo-Lag 330-1 fire barrier systems by bounding our installations at BVPS Unit 2 to a qualified, tested configuration. Minor anomalies or differences with tested configurations will be evaluated and justification provided in supporting engineering analysis. Engineering analysis providing justification of the Thermo-Lag installations at BVPS Unit 2 including ampacity derating evaluations will be completed by September 29, 1997.