

PP&L

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May 16, 1979

Mr. Robert T. Carlson
Chief FS & ES Branch
U. S. Nuclear Regulatory Commission
631. Park Avenue
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SUSQUEHANNA STEAM ELECTRIC STATION
NRC INSPECTION OF MARCH 6-8, 1979
REPORT NOS. 50-387/79-11 & 50-388/79-07 (COMBINED)
ERS 100450/100508 FILE 840-4
PLA-359

Dear Mr. Carlson:

Reference is to your letter of April 17, 1979 forwarding IE Inspection Report Nos. 50-387/79-11 & 50-388/79-07 and Enclosure (1) thereto, "Appendix A, Notice of Violation".

Your letter advised that PP&L was to submit within 30 days of receipt, a written explanation addressing (1) corrective steps which have been taken and the results achieved, (2) corrective steps which will be taken to avoid further items of noncompliance, and (3) the date when full compliance will be achieved.

The Notice of Violation (infraction) states as follows and the corrective measures are detailed below:

"10 CFR 50, Appendix B, Criterion V, states, in part, that: "Activities affecting quality shall be prescribed by documented instructions, procedures, or drawings...and shall be accomplished in accordance with these instructions, procedures, or drawings."

The Susquehanna PSAR, Appendix D, Quality Assurance Program, Paragraph D.2.5 states, in part, that: "Activities affecting quality will be prescribed by documented instructions, procedures, or drawing appropriate to the circumstances..." Bechtel Field Project Procedure E-8, Revision 0, states in Section 6.3.1 that, "Aluminum conductors shall be thoroughly brushed with a fine bristle stainless steel wire brush immediately prior to installation of the conductor to remove any oxide film from the conductor strands."

Contrary to the above, on March 7, 1979, the installation of terminations on two 500 MCM aluminum conductors for the 250 VDC battery charger ID653B was completed without brushing with a wire brush as required."

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May 16, 1979

(1) Corrective steps which have been taken and the results achieved:

As stated in the subject NRC inspection report, the terminations whose conductors had not been wire brushed were cut off and new terminations were made in accordance with the requirements of FP-E-8, Part 2, Paragraph 6.3.2.

In addition, guidance on wire brushing requirements for aluminum conductors was obtained from the three manufacturers approved for supplying termination connectors for power cables. The connector manufacturers (Homac Mfg. Company, Thomas & Betts, and Burndy) have advised that wire brushing of aluminum conductors is not mandatory prior to the application of cable connectors.

Furthermore, tests were performed by Burndy who compared the relative resistance of aluminum conductors terminations which had been accomplished on conductors which had been wire brushed vs. conductors which had not been wire brushed. The relative resistance of the assemblies made with wire brushed conductors compared to those made without wire brushing was essentially the same.

To eliminate the possibility that any aluminum conductor terminations could have been made without having been wire brushed, it would be necessary to remove all existing terminations and to reterminate all aluminum conductor connections. The benefits to be derived from such an approach are insignificant. Therefore, based upon the laboratory tests performed by Burndy and the recommendations of Homac and Thomas & Betts, it is concluded that the wire brushing of aluminum conductors, while it is good industry practice, is not mandatory for accomplishing good terminations.

(2) Corrective steps which will be taken to avoid further items of noncompliance:

To preclude recurrence, a memo was issued to applicable personnel reiterating the requirement to wire brush the conductor prior to connector installation.

(3) Date when full compliance was achieved:

Instructions, via Bechtel memo No. 187, were issued to Field personnel on April 24, 1979.

We trust the Commission will conclude that the actions taken to date are adequate.

Very truly yours,


A. R. Sabol
Manager-Nuclear Quality Assurance

JRB:mcb

cc: Mr. Robert M. Gallo
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