



PHILADELPHIA ELECTRIC COMPANY

2301 MARKET STREET

P.O. BOX 8699

PHILADELPHIA, PA. 19101

(215) 841-4502

JUN 24 1983

JOHN S. KEMPER
VICE PRESIDENT
ENGINEERING AND RESEARCH

Mr. Thomas E. Murley, Director
United States Nuclear Regulatory Commission
Office of Inspection and Enforcement, Region I
631 Park Avenue
King of Prussia, PA 19406

Subject: US NRC IE Letter, dated May 26, 1983
RE: Site Inspection of March 19 - April 22, 1983
Inspection Report No. 50-352/83-05 and 50-353/83-02
Limerick Generating Station, Units 1 & 2

File: QUAL 1-2-2 (352/83-05 and 353/83-02)

Dear Mr. Murley:

In response to the subject letter regarding items identified during the subject inspection of construction activities authorized by NRC License No. CPPR-106, -107, we transmit the following:

Attachment I - Response to Appendix A

Also enclosed is an affidavit relating to the response.

Should you have any questions concerning these items, we would be pleased to discuss them with you.

Sincerely,

JMC/mmk

Attachments

Copy to: Director of Inspection and Enforcement
United States Nuclear Regulatory Commission
Washington, D. C. 20555

S. K. Chaudhary, US NRC Resident Inspector

8307120508 830706
PDR ADOCK 05000352
Q PDR

COMMONWEALTH OF PENNSYLVANIA :

ss.

COUNTY OF PHILADELPHIA :

JOHN S. KEMPER, being first duly sworn, deposes and
says:

That he is Vice President of Philadelphia Electric
Company, the holder of Construction Permits CPPR-106 and CPPR-107
for Limerick Generating Station Units 1 and 2; that he has read the
foregoing Response to Inspection Report No. 50-352/83-05 and
50-353/83-02 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.

John S. Kemper

Subscribed and sworn to
before me this 24TH day
of June, 1983

Judith Y. Frankli
Notary Public

Notary Public, Philadelphia, Philadelphia Co.
My Commission Expires July 28, 1983.

ATTACHMENT I
RESPONSE TO APPENDIX A

Violation A

10CFR50, Appendix B, Criterion V requires that activities affecting quality shall be prescribed by documented instructions, procedures, or drawings, of a type appropriate to the circumstances, and shall be accomplished in accordance with these instructions. Also, it requires that the instructions, procedures, or drawings shall include appropriate quantitative or qualitative acceptance criteria for determining that activities have been satisfactorily accomplished.

Project Electrical Layout Drawing E-1406, Sections 2.3.c, d, e, f; 2.9; and 5.9 establish requirements for separation in raceways; Section 4.3.d establishes requirements for conduit bends.

Project Quality Control Instruction E-2, General Instruction No. 10 states: "Raceway separation verification is performed as part of the activities of PQCI E-2.0".

Project QCIE 2.0, Section 3.9.a, further requires that installed cable tray locations be verified for conformance to electrical layout drawings and meet horizontal and vertical location within tolerance. And, Section 2.7 requires the verification of conduit bends.

Contrary to the above, on April 8, 1983, the following violations were identified:

1. The separation requirements for electrical raceway (cable trays) were not verified in accordance with PQCI E-2.0, Section 3.9.a.
2. Project Quality Control Instruction PQCI E-2.0 did not include appropriate inspection methods to verify quantitative acceptance criteria for conduit bends.

Response to Violation A

The Notice of Violation relative to raceway separation references Project Quality Control Instruction 8031-E-2.0 and indicates that General Instruction 10 states "Raceway separation verification is performed as part of the activities of PQCI E-2.0". The report fails to indicate that the sentence immediately following the above states that "Additional separation verifications are also performed in conjunction with the installation of raceway barriers and seals in accordance with PQCI E-3.0". It is now, and has always been the intent to verify final separation requirements which are met by the installation of barriers and seals when spatial separation is not provided and that this inspection be performed and documented in

Response to Violation A - Continued

accordance with the requirements of Project Quality Control Instruction E-3.0. However, in order to preclude further confusion relative to this subject, Project Quality Control Instruction E-2.0 has been revised to more clearly indicate that the separation inspections performed and documented in association with these instructions, are preliminary and that the final inspection activities for separation shall be performed under PQCI 8031-E-3.0. The requirements for the installation of these barriers and seals are defined in Drawing 8031-E-1406.

With regard to the excessive bends in conduit, the Project Design Document (Drawing E-1406) has been revised by Design Change Notice 189 to state that the Field need only perform a visual inspection to assure that the bend criteria is met. The reason for the inspection of bends is to minimize the amount of conduit rework during and just prior to cable pulling. An additional inspection of raceways is performed just prior to cable pulling and all safety related cables are pulled under a 100% QC Inspection Program. Consequently, a visual conduit bend inspection is all that was intended by the Project Design Document (Dwg. E-1406) and this is now clearly defined.

Violation B

10CFR50, Appendix B, Criterion III requires that "Design Control measures shall provide for verifying or checking the adequacy of design....".

Section 10.1.4.2.4 of M-830 states the minimum separation between redundant instrument sensing lines shall be at least 18 inches in air. As an alternative, a suitable steel or concrete barrier shall be used.

Contrary to the above, on April 8, 1983, Drawing FJ-44-18, Revision 1, was issued, following engineering review and approval, containing incorrect separation criteria based on redlined Drawing FJ-44-18, Revision 0. The requirement for a suitable steel or concrete barrier was not evident in either drawing revision.

Response to Violation B

Drawing FJ-44-18 was revised to include a steel barrier in compliance with Section 10.0 of M-830. The steel barrier has been installed between the redundant instrument sensing lines and Quality Control's inspection has found the barrier to be acceptable.

A final Civil Inspection of barriers and supports per PQCI 8031/I-1.10 had not taken place at the time of the NRC inspection. Only the tubing and instrument locations were inspected prior to the NRC inspection.

A review of drawings of other lines running to similar racks for similar conditions was conducted to ensure that minimum separation has been maintained. No other violations were noted during the review.

To prevent recurrence, the appropriate personnel were re-trained in separation requirements.