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**PHILADELPHIA ELECTRIC COMPANY**

2301 MARKET STREET

P.O. BOX 8699

PHILADELPHIA, PA. 19101

(215) 841-4502

JOHN S. KEMPER  
VICE-PRESIDENT  
ENGINEERING AND RESEARCH

**JUL 3 1984**

Mr. Thomas E. Murley, Director  
United States Nuclear Regulatory Commission  
Office of Inspection and Enforcement, Region 1  
631 Park Avenue  
King of Prussia, Pa. 19406

Subject: US NRC IE Region 1 Letter dated January 10, 1984  
Site Inspection of October 17-November 30, 1983  
Inspection Report No. 50-352/83-19 and 50-353/83-07

References: J. S. Kemper Letters to T. E. Murley, dated 2/17/84  
and 3/26/84

File: QUAL 1-2-2 (352/83-19)

Dear Mr. Murley:

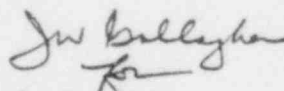
The referenced letters forwarded interim reports of the corrective actions being taken to resolve Violation 2 of Inspection Report 50-352/83-19. The corrective actions to resolve this violation are now complete. Transmitted herewith is the following:

Attachment I - Response to Appendix A, Violation 2

Also enclosed is an Affidavit relating to the Response.

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

Sincerely,

  
J. S. Kemper

FJC:am  
Attachment

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

S. K. Chaudhary, USNRC Resident Inspector

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PDR ADDCK 05000352  
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COMMONWEALTH OF PENNSYLVANIA :  
COUNTY OF PHILADELPHIA : SS:

J. W. GALLAGHER, being first duly sworn, desposes  
and says:

That he is Manager of the Engineering and  
Research Department of the Philadelphia Electric  
Company, the holder of Construction Permit CPPR-106 and  
-107 for Limerick Generating Station Units 1 and 2;  
that he has read the foregoing Response to Inspection  
Report No. 50-352/83-19 and 50-353/83-07 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.

J. W. Gallagher

Subscribed and sworn to  
before me this 3<sup>rd</sup> day  
of July 1984.

Patricia D. Scholl

PATRICIA D. SCHOLL  
Notary Public, Philadelphia, Philadelphia Co.  
My Commission Expires February 10, 1986

VIOLATION 2

10 CFR 50, Appendix B, Criterion X requires the establishment of a program that assures that examinations, measurements, or tests of material or products processed be performed for each work operation where necessary to assure quality.

Section 17.2A.10 of the Final Safety Analysis Report and Volume 1, Section 10 of the Limerick Generating Station Quality Assurance Plan establish this program.

Contrary to the above, the program established for engineering and quality inspection of pipe support hangers failed to assure the quality of two safety-related hangers in that, as of November 7, 1983, hangers VRR-IRS-HHA-1 and HHB-1, for the reactor recirculation system suction piping were inadequately designed and installed and the inadequacies were not identified during the engineering and quality inspections which had been completed.

RESPONSE TO VIOLATION 2

The NRC Inspector-identified binding consisted of spring canister lugs rubbing against the clevises which hold the lugs. Engineering has determined the cause of the binding to be an excessive lateral swing angle of the spring canister and rod. The Inspector-identified binding condition has been corrected by implementing an option which was included in a GE Field Deviation Disposition Request (FDDR) which was issued prior to the binding being identified. The option was not used during the initial installation because the possibility of binding developing was not foreseen.

In addition, all 24 GE NSSS designed hangers have been inspected for similar binding conditions. No other similar binding conditions were identified. Some of these hangers were found to have minor interferences which have all been resolved.

Only the GE NSSS designed hangers were inspected since Bechtel designed hangers are not susceptible to these excessive swing angles because the governing hanger installation specification restricts the installed swing angle to less than 4° at operating temperature.

The installation instructions for the GE designed hangers are not as detailed as those for Bechtel. However, this does not mean that the engineering and quality inspection program is inadequate as is stated in the violation. At the time of the NRC inspection, PECO Quality Assurance Personnel did not realize that although GE did not provide tolerances for the installation of these hangers, they did require As-Built sketches of the installed hangers for GE review and approval. At the time of the NRC inspection this review and approval had not occurred and, therefore, the engineering work on these hangers was not yet complete. Furthermore, PECO Quality Assurance determined that Bechtel QC had initiated a 100% reinspection of all GE designed hangers just prior to the violation being identified. This was done because the original QC inspections were done to the hanger As-Builts and unfortunately these As-Builts have been misplaced. This information was not realized by PECO Quality Assurance during the NRC inspection and, therefore, not made known to the NRC Inspector.

RESPONSE TO VIOLATION 2 (Continued)

The confusion on the inspection status of these hangers continued to the time PECO first responded to this violation. In that response we noted that Bechtel QC had identified several nonconformances on the GE NSSS hangers. These nonconformances were identified as a part of Bechtel QC's own inspection effort necessitated by the lost As-Builts. Bechtel QC decided to perform these inspections in conjunction with the inspections for binding as a matter of convenience. At the time of the first response we did not realize the distinction of the inspection efforts and therefore, reported the results as though they were related. These nonconformances are now being resolved through normal channels.

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VICE-PRESIDENT  
ENGINEERING AND RESEARCH

JUL 19 1984

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: USNRC IE Region I Letter Dated June 20, 1984  
RE: Site Inspection of May 1-31, 1984  
Inspection Report No. 50-352/84-24 & 50-353/84-08  
Limerick Generating Station - Units 1 and 2

File: QUAL 1-2-2 (352/84-24 & 353/84-08)

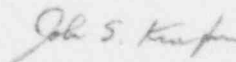
Dear Mr. Murley:

In response to the subject letter regarding items identified during the subject inspection of construction activities authorized by NRC License Nos. CPPR-106 and 107, we transmit herewith the following:

Attachment I - Response to Appendix A

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

Sincerely,



JPE/drd/  
Attachment

Copy to; Director of Inspection and Enforcement  
United States Nuclear Regulatory Commission  
Washington, DC 20555

S. J. Chaudhary, USNRC Resident Inspector

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ATTACHMENT I

RESPONSE TO APPENDIX A

A. VIOLATION

10 CFR 50 Appendix B, Criterion III requires that measures be established to assure that applicable design bases for safety-related systems are correctly translated into drawings.

Section 3 of Volume 1 of the Limerick Generating Station Quality Assurance Plan implements these requirements of 10 CFR 50.

Contrary to the above, the design bases for the main steam isolation valve leakage control system were not correctly translated into all drawings in that (1) the requirement for screens over the system's dilution air inlets described on piping and Instrumentation Diagram (P&ID) M-40 was not translated onto two isometric drawings; and (2) the seismic classifications of four of the system process lines shown on P&ID M-40 were not correctly translated onto three isometric drawings and four field sketch drawings.

RESPONSE

- 1) Piping Isometric drawing HBB-157-1 and HBB-158-1 were revised to add inlet screens to agree with the note on P&ID M-40. DCP#0445 was issued to accomplish this work.

Other P&ID's were reviewed for notes which could affect Isometric drawings and no other deficiencies were identified.

Additionally, a memorandum was issued to Bechtel Project Engineering personnel involved in design work reminding them to verify design with P&ID notes.

- 2) The Seismic Classifications on the three piping Isometric drawings and four piping Field Sketches were corrected.

Other piping Isometrics and Field Sketches were reviewed and corrected as necessary.

Seismic category information is not pertinent to the field and therefore will not be put on Field Sketches in the future. The responsible personnel were issued a memorandum reminding them regarding placing correct information on the Isometrics.

B. VIOLATION

10 CFR 50 Appendix B, Criterion V and the Limerick Quality Assurance Plan, Section 5 require that activities affecting quality shall be accomplished in accordance with appropriate procedures. Bechtel Job Rule 8031-JR-G-7, Appendix B, Paragraph 8.0 requires that equipment be covered adequately so that dirt or other foreign materials can not enter therein.

Bechtel Job Rule 8031-JR-G-8, Paragraph 9.4.1.2 requires that equipment be installed with closed end caps. Bechtel Job Rule 8031-JR-G-11, Paragraph 4.0 requires that the basic rules of good housekeeping shall be implemented to provide safe and efficient working and storage conditions and eliminate potential hazards.

Contrary to the above, as of May 14, 1984 the following were identified:

- a. The Drywell fan (2AV212) was wrapped with torn and inadequate cover.
- b. The pipe spools EBB-202-1-4, EBB-201-1-7 and EBB-201-1-9 had no closed end caps installed. The pipe spools EBB-202-1-8 and EBB-203-1-9 were inadequately protected at the ends. One downcomer, at drywell area, elevation 238', was in-place without end cover.
- c. The Diesel Oil Transfer Pump (2AP514) was surrounded by debris and dirt had infiltrated around the motor shaft area.

RESPONSE

Items A, B and C were inspected for damage, deterioration and cleanliness. No adverse affects on the quality of the equipment was found. This inspection is documented on Quality Control Inspection Report BK538.

Items A and B:

The Drywell Fan, pipe spools and downcomer pipe were recovered to protect them from dirt and debris.

Item C:

The Diesel Oil transfer pump area was cleaned and in addition, more stringent controls were placed in effect to maintain cleanliness requirements.

The maintenance inspection frequencies for the Drywell Fans and Diesel Oil Transfer Pumps have been increased. Procedures providing for In-Place Storage Inspection of Downcomer Piping which includes QC verification have been placed in effect as defined in Revision 25 of Job Rule G-8.

Verification of the above response is documented by the Licensee on Surveillance Check Report G-102.

REV 7/17/88 11:00 AM

RECEIVED - 8/1/84

I 2/2  
352/84-24  
and  
353/84-08

RFS