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S. J. KOWALSKI
VICE-PRESIDENT
NUCLEAR ENGINEERING

NRC Inspection Report 50-352/88-02

June 13, 1988

Docket No. 50-352

Mr. W. V. Johnston, Acting Director
Division of Reactor Safety
U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

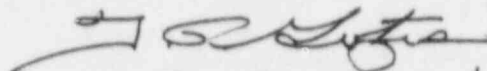
SUBJECT: Limerick Generating Station
Inspection Report No. 50-352/88-02

Dear Mr. Johnston:

Your letter dated May 12, 1988 forwarded Inspection Report No. 50-352/88-02 for Limerick Generating Station. Appendix A of your letter addressed two items which do not appear to be in full compliance with Nuclear Regulatory Commission requirements. These items are restated in Attachment A followed by our responses.

If you have any questions or require additional information, please do not hesitate to contact us.

Very truly yours,


For S. J. Kowalski

Attachments

cc: Addressee
W. T. Russell, Administrator, Region I, USNRC
T. J. Kenny, USNRC Senior Resident Inspector

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Violation A:

"10 CFR 50.49 paragraph (f) requires each (item of) electrical equipment important to safety and located in a harsh environment to be qualified by testing, experience, or analysis based on type test data.

Contrary to the above, on February 12, 1988, while LGS Unit 1 was in operation, the inspectors identified that:

1. The qualification of Rockbestos coaxial cable and special multiconductor cable (EQ package #25), Rockbestos 600V power, control and instrumentation cables (EQ package #22), and Rockbestos thermocouple extension cable (EQ package #24) was not established at the time of the inspection in that the qualification test report was invalid because of problems identified in Information Notice 84-44 (inadequate QA Program, test equipment not properly calibrated, test deficiencies and test anomalies improperly documented, and test documents improperly controlled).
2. The qualification of the unidentifiable cable splices associated with level transmitters LT-48-IN010-C and LT-48-IN010-G was not established in that no EQ file was available to support qualification of these splices.
3. The qualification of Amp Splice connectors (EQ package No. 194) was not established at the time of the inspection in that the qualification test documented in the EQ file did not demonstrate insulation resistance capabilities for the splice connectors during the simulated LOCA event (the splice connectors were not energized throughout the event, and were not touching each other or the electrical ground during the test)."

This is a Severity Level IV violation (Supplement I).

Response:

Admission or Denial of Alleged Violation:

Philadelphia Electric Company acknowledges items 1 and 3 of Violation A as stated, but does not acknowledge item 2 of Violation A as a violation.

Reason for the Violation:

1. The reason for the violation was that certain technical documentation was not included in the controlled environmental qualification packages at the time of the inspection. PECO Procedure EE-6.2, "Procedure for the Control of Environmental Qualification Documentation for Nuclear Plant Class 1E

Equipment", did not adequately address the review of vendor test reports and the subsequent update of environmental qualification packages. As a result, Rockbestos test reports which address the concerns of NRC Information Notice IN-84-44 were not included in the LGS controlled EQ package Nos. 22, 24 and 25.

2. The results of the investigation regarding the unidentifiable cable splices were transmitted in a letter from R. J. Lees, Philadelphia Electric Company, to C. Anderson, NRC, dated February 29, 1988. The investigation determined that the heat shrink tubing identified during the inspection was not insulating a splice. Qualification is not required for this application. Therefore we believe that no violation exists.
3. The reason for this violation was that the AMP butt splice (EQ package No. 194) did not address the insulation resistance capabilities during the LOCA portion of the test due to test anomalies. Specifically, the test specimens were not in contact with the ground plane and shortly after the start of the LOCA test the 600V potential was removed. We concur that the package did not adequately address these anomalies. However, prior to this inspection PECO Engineering had evaluated these anomalies and concluded that the post-LOCA tests included in the EQ package qualified the connectors.

Significance of Violation:

1. There is no safety significance to this event. The Rockbestos test reports QR-5804 and QR-6802, which were in the EQ files, when combined with the controlled EQ package, constitute valid EQ test results for EQ package Nos. 22, 24 and 25. The equipment was qualified; however, the documentation was not properly controlled.
2. Not applicable.
3. There is no safety significance to this event. The additional documentation, which adequately addresses the test anomalies, was obtained during the inspection from another nuclear utility. The equipment in question was qualified, however, adequate documentation was not provided in the controlled EQ package.

Corrective Action Taken and Results Achieved:

1. The Rockbestos test reports QR-5804 and QR-6802 when combined with EQ package Nos. 22, 24 and 25 constitutes a valid equipment qualification test report. These Rockbestos reports will be included in the revised EQ package by August 1, 1988.
2. Not applicable.

3. During the inspection PECO obtained and reviewed additional supplementary test data from another nuclear utility. EQ Package No. 194 was reviewed and revised on February 15, 1988. The revised package demonstrates qualification of the AMP butt splices as used at LGS.

Corrective Action Taken to Avoid Future Non-Compliance:

1. PECO procedure EE-6.2 "Procedure for the Control of Environmental Qualification Documentation for Nuclear Plant Class 1E Equipment" is being revised and will be issued by August 1, 1988. The revised procedure will address the review and inclusion of updated vendor test reports in EQ packages.
2. Not applicable.
3. Not applicable, due to the unique technical nature of this violation.

Date When Full Compliance Will Be Achieved:

1. Rockbestos EQ package Nos. 22, 24 and 25 will be revised to include Rockbestos test reports QR-5804 and QR-6802. The revision will be completed by August 1, 1988. PECO procedure EE-6.2 will be revised by August 1, 1988.
2. Not applicable.
3. EQ Package No. 194 was revised on February 15, 1988.

Violation B:

"10 CFR 21.31 requires the procurement documents for non-commercial grade items to have the provisions of 10 CFR Part 21 invoked on the vendor.

Contrary to the above, on February 12, 1988, the inspectors identified that purchase order LS224109 for a quantity of AMP PIDG terminals and butt splices which were ordered to IEEE nuclear environmental standards (non-commercial grade items) did not specify 10 CFR Part 21 requirement."

This is a Severity Level V Violation (Supplement I).

Response

Admission of Alleged Violation:

Philadelphia Electric Company acknowledges the violation.

Reason for the Violation:

The reason for the violation was LGS Specification E-1415, "Field Procurement of Off-the-Shelf Q-Listed Components for Field Modifications and Replacements", permitted the procurement of AMP butt splices as commercial grade items.

The purchase order in question, LS 224109, was used to procure AMP butt splices and was generated per the guidance of E-1415.

Significance of Violation:

There is no safety significance to this event. Although 10 CFR Part 21 was not invoked on the purchase order, the AMP splices used at Limerick were evaluated and qualified as per EQ package 194.

Corrective Action Taken:

E-1415 is being revised and will be issued by August 1, 1988 to require AMP PIDG terminal and butt splice procurements to include the requirements of 10 CFR Part 21.

Corrective Action Taken to Prevent Future Non-Compliance:

Implementation of the revised requirements will assure the inclusion of 10 CFR Part 21 requirements in the applicable procurement documents.

Date When Full Compliance Will Be Achieved:

Full compliance will be achieved by August 1, 1988.