

## PHILADELPHIA ELECTRIC COMPANY

LIMERICK GENERATING STATION

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April 23, 1992

GRAHAM M. LEITCH  
VICE PRESIDENT  
LIMERICK GENERATING STATION

Docket No. 50-352  
License No. NPF-39

U.S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, DC 20555

SUBJECT: Limerick Generating Station, Unit 1  
Reply to a Notice of Violation  
NRC Combined Inspection Report Nos. 50-352/92-03  
and 50-353/92-03

Attached is Philadelphia Electric Company's reply to a Notice of Violation for Limerick Generating Station (LGS) Unit 1, which was contained in the NRC Combined Inspection Report Nos. 50-352/92-03 and 50-353/92-03 dated March 24, 1992.

The Notice of Violation identifies the failure to follow an approved maintenance procedure during maintenance on the Unit 1 "B" Residual Heat Removal heat exchanger inlet isolation valve (HV51-1F014B).

The attachment to this letter provides a restatement of the violation identified during an NRC inspection conducted between January 5, 1992 through February 15, 1992, at LGS, Units 1 and 2 followed by our response.

If you have any questions or require additional information, please contact us.

Very truly yours,



FDS/JLP:cah

Attachment

cc: T. T. Martin, Administrator, Region I, USNRC  
T. J. Kenny, USNRC Senior Resident Inspector, LGS

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Reply to a Notice of Violation

Restatement of the Violation

During an NRC inspection conducted on January 5 through February 15, 1992, a violation of NRC requirements was identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1992), the violation is listed below:

Limerick Technical Specification 6.8.1.a. requires that written procedures be established, implemented and maintained to cover the applicable procedures recommended in Appendix A of Regulatory Guide 1.33, Revision 2, February 1978. For maintenance that can affect the performance of safety-related equipment, Regulatory Guide 1.33, Appendix A, Section 9.a. recommends it be properly preplanned and performed in accordance with written procedures, documented instructions, or drawings.

Contrary to the above, on January 14, 1992, during maintenance on the residual heat removal heat exchanger inlet isolation valve (HV51-1F014B), the approved maintenance procedure PMQ-500-087, "Preventative Maintenance Procedure for Electrical Checkout and Adjustment of Limitorque Operators," was not properly implemented as evidenced by the following examples:

1. Procedure PMQ-500-087, prerequisite steps 4.2 and 4.4, requires the job leader to record the appropriate torque switch settings and stroke time data, from the Field Engineering Data Sheet, on the Maintenance Data Record Form. The job leader failed to record the torque switch settings and stroke times.
2. Procedure PMQ-500-087, step 7.9.2, requires the performance of a stroke time test of the motor operated valve and verification that the results are acceptable. The job leader signed this step as complete without verifying the acceptability of the stroke time test results.
3. Procedure PMQ-500-087, step 7.10.1, requires the mechanic and quality control inspector verify that test switches, installed earlier in the procedure, are removed. Both the mechanic and quality control inspector annotated this step as not applicable although the mechanic actually removed the switches.

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

RESPONSE

Admission of Violation

Philadelphia Electric Company (PECo) acknowledges the violation.

Reason for the Violation

The cause of the violation is procedural non-compliance due to lack of attention to detail on the part of the individuals who performed and verified performance of the preventive maintenance procedure coupled with a less than adequate procedure in regards to technical direction and human factor aspects.

The maintenance job leader (mechanic) involved in this event believed that recording the torque switch data as specified in procedure PMQ-500-087, step 4.2 was not required because no torque switch setting was to be made. Non-compliance with steps 4.4 and 7.9.2 occurred when the maintenance job leader requested stroke time settings, but was unable to obtain the data and the job proceeded without it. The maintenance job leader stated that he was comfortable with the content of the procedure and was not reading the procedure step-by-step which caused the procedure non-compliance for step 7.10.1. The quality verification inspector misunderstood the conditions that applied to procedure PMQ-500-087 step 7.10.1 as stated in the Maintenance Data Record Form (MDRF) because the MDRF only partially stated this step. PMQ-500-087 was inadequate in the following ways:

1. It referred to Field Engineering (a group that no longer exists) and to MOVATS testing (a valve diagnostic method that is no longer utilized at Limerick).
2. Prerequisites require recording data in the remarks section of the MDRF rather than at the procedure step being performed.
3. Multiple tasks are included in only one sign-off step.
4. The procedure did not specify when VOTES testing (a valve diagnostic method currently utilized at Limerick) was required after limit switch adjustment.
5. Sign-offs for some steps do not adequately describe the content of the procedure.

Corrective Action and Results Achieved

Because of previous occurrences of a similar nature, the lack of procedural compliance discovered during this event was quickly recognized as a generic problem throughout the Maintenance/Instrumentation and Controls (I&C) organization. On February 13, 1992, the Maintenance/I&C Superintendent issued a stop work order that implemented a review system by upper level Maintenance/I&C management of all work before it is performed to ensure that procedure compliance is fully implemented within the culture of the organization. The quality verification inspector involved with this event was restricted from performance of inspection duties.

Corrective Actions Taken to Avoid Future Non-Compliance

The following actions were taken to avoid future non-compliance due to a lack of attention to detail:

1. This event was reviewed in a Maintenance/I&C section all-hands meeting on March 5, 1992 to stress the importance of attention to detail when using procedures.
2. A procedure use and compliance training module was developed within the Maintenance/I&C Section. This training included the methods to get procedures changed. This training was given by individual first line supervisors to their work teams between February 24, 1992, and March 6, 1992.
3. A performance improvement plan was developed for the quality verification inspector involved in this event by quality verification supervision that included remedial training, a written examination, and a performance demonstration prior to allowing the quality verification inspector to resume his inspection duties on March 20, 1992.
4. An all-hands meeting was held on February 14, 1992, with quality verification section personnel to identify the problems with activities associated with this event, to reinforce management expectations for inspector performance and to heighten the awareness of the maintenance problems to the quality verification planners.
5. An additional all-hands meeting was conducted on March 20, 1992, to reinforce to all quality verification inspectors management's expectations regarding strict procedural compliance, attention-to-detail, customer focus, and independence of the quality verification section. This meeting included emphasis on For Your Information (FYI) notice FYI-12, "Attention-to-Detail" and FYI-15, "Use of Procedures," which provide a clear, concise set of written management expectations to first line supervision who then

disseminate the expectations to station personnel; work order planning; the process for revising the scope of work orders; the proper method of reconciling discrepancies between procedure text and MDRF; the Temporary Change process for procedures; and referral of issues which require interpretation or are controversial in nature to quality verification supervision.

6. To determine the potential generic implications of this event, quality verification management is conducting an analysis to identify barriers which may require strengthening. This review is expected to be completed by May 1, 1992.

The following actions were taken to avoid future non-compliance due to less than adequate procedures:

1. PMQ-500-087 was revised on March 17, 1992 to include required VOTES testing, improved human factor aspects, and better defined acceptance criteria. All procedures that interface with motor operated valves were reviewed to update Maintenance/I&C organizational changes, work control processes, and VOTES testing requirements.
2. Maintenance Guideline MG-20, "Post-Maintenance Testing," was revised on March 11, 1992, to be more specific about limit switch adjustments and VOTES testing.

Date When Full Compliance was Achieved

Full compliance was achieved on February 13, 1992, when a review system by upper level Maintenance/I&C management of all work before its performance was implemented. Following the completion of the corrective actions previously described, first line management in Maintenance/I&C became responsible for procedural compliance of maintenance activities.