10 CFR 2.201

PHILADELPHIA ELECTRIC COMPANY

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GRAHAM M. LEITCH
VICE PRESIDENT
LIMERICK GENERATING STATION

February 12, 1992

Docket Nos. 50-352
50-353
License Nos. NPF-39
NPF-85

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

SUBJECT: Limerick Generating Station, Units 1 and 2
Reply to a Notice of Violation
NRC Inspection Report Nos. 50-352/91-22 and 50-353/91-23

Attached is Philadelphia Electric Company's reply to a Notice of Violation for Limerick Generating Station (LGS) Units 1 and 2, which was contained in the NRC Inspection Report Nos. 50-352/91-22 and 50-353/91-23 dated December 27, 1991 and received on January 8, 1992.

The Notice of Violation identifies an event involving failure to maintain control of surveillance testing. The violation concerns the failure to promptly identify and declare the 'A' Emergency Service Water subsystem inoperable following an unsatisfactory surveillance test.

The attachment to this letter provides a restatement of the violation identified during an NRC inspection conducted between October 6, 1991, through November 16, 1991, at LGS, Units 1 and 2, followed by our response.

An extension of five days to the prescribed response time was requested of T. J. Kenny and granted to verify the effectiveness of these corrective actions.

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

Very truly yours,

KOS:cah

Attachment

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

IE01
1/1

bcc: D. M. Smith - 52C-7
J. Doering, Jr. - ADM5-1
D. R. Helwig - 63C-1
J. W. Durham - S26-1
G. A. Hunger, Jr. - SMB1-1
R. W. Boyce - ADM5-1
L. A. Hopkins - ADM5-1
J. A. Muntz - ADM5-1
ISEG Supt. - SMB3-2
G. J. Madsen - SSB3-4
J. F. O'Rourke - SSB4-3
R. N. Charles - 51A-1
G. J. Beck, Jr., - 52A-5
Secretary, NCB - 51A-13
Correspondence Release Point - SMB1-2
DCC
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Reply to a Notice of Violation

Restatement of the Violation

As a result of an inspection conducted from October 6 to November 16, 1991, and in accordance with NRC Enforcement Policy (10 CFR 2, Appendix C), the following examples of a violation of Plant Technical Specification Administrative Controls were identified. These failures to follow procedures resulted in a failure to formally declare a test unsatisfactory and the subsystem inoperable.

Plant Technical Specification 6.8.1 requires, in part, that written procedures shall be established and implemented.

1. Administrative Procedure A-26 "Procedure for Plant Maintenance Using the Maintenance Request Form," paragraph 5.1, states that all personnel are responsible for the prompt identification and documentation of conditions adverse to plant safety, such as failure or malfunctions. This process is performed by the initiation of a Maintenance Request Form.

   Contrary to the above on October 25, 1991, during the performance of Surveillance Test ST-6-011-231-0 "A Loop ESW Pump Valve and Flow Test," an operator identified the failure of check valve 11-0063; but, failed to document the malfunction with the initiation of a Maintenance Request Form.

2. Surveillance Test ST-6-011-231-0 "Loop ESW Pump Valve and Flow Test," step "B" of the test results page states that, when the test is considered a failure immediately notify the senior plant staff member.

   Contrary to the above on October 25, 1991, the senior plant staff member was not notified of the event until the following day and the procedure portion marked "date/time notified" was not completed until October 28, 1991.

The above examples of failure to implement administrative controls over pump and valve surveillance testing are collectively a Severity level IV violation (Supplement 1).

RESPONSE

Admission of Violation

Philadelphia Electric Company (PECo) acknowledges the violation.

Background

On October 25, 1991, during the afternoon shift, Surveillance Test (ST) procedure ST-6-011-231-0, "A Loop Emergency Service Water Pump, Valve, and Flow Test," was being performed for its normally scheduled quarterly performance by a non-licensed operator. This ST procedure contains an Inservice Inspection (I) step (i.e., step 6.4.40) that verifies proper operation of the safety related Emergency Service Water (ESW) system check valve, 11-0063. This check valve provides one isolation point between the non-safety related Service Water (SW) system and the ESW system. This check valve is one of the components relied upon to ensure ESW system piping integrity under accident conditions and allows the SW system to supply cooling water to the Unit 2 Reactor Core Isolation Cooling (RCIC) system room coolers during normal operating conditions (See Figure 1).

The purpose of ST procedure step 6.4.40 is to ensure that valve 11-0063 checks flow by verifying that no pressurized flow exists from the ESW system line to the SW system line. Proper operation of the check valve is verified by opening drain valve 11-2075 and observing no pressurized water flow with valve 11-2013 closed (See Figure 1). The non-licensed operator properly performed this ST procedure step; however, he observed that pressurized flow did exist from the drain valve. The licensed operations Floor Supervisor was immediately made aware of this condition by the non-licensed operator as required by the ST procedure. The non-licensed operator was then instructed by the operations Floor Supervisor to place a note in the ST procedure identifying this discrepancy in accordance with the procedure. A note was placed in the ST procedure stating that, "pressurized flow exists from valve 11-2075 as it did the last time the ST was performed." The non-licensed operator's note was referring to the last time he had performed the ST procedure in May 1991, at which time the check valve was replaced in kind. The non-licensed operator then informed the Main Control Room (MCR) Chief Operator (CO), a licensed operator, that the drain valve had pressurized flow. The non-licensed operator completed the ST procedure and returned it to the MCR CO. The MCR CO signed the ST procedure as unsatisfactory at 2310 hours and left the Independent Verification of Restoration (IVOR) section of the ST procedure to be completed by the licensed MCR CO on midnight shift.

Early on October 26, 1991, during the midnight shift, the MCR CO had the IVOR section of the ST procedure completed, and gave the failed ST procedure to the licensed MCR Shift Supervisor for review. The licensed MCR Shift Supervisor reviewed the ST procedure and then discussed the results with the licensed MCR Shift Manager and non-Licensed Shift Technical Advisor (STA). They could not be certain whether the check valve had failed or the SW system manual isolation valve 11-2013 was leaking. As a result of the non-licensed operator's note, the MCR Shift Manager, MCR Shift Supervisor, and STA assumed that corrective actions and an

operability determination had previously been addressed. However, the MCR personnel did not verify that adequate corrective actions had been initiated. They also discussed that the failed ST procedure step was an (I) step, not an asterisk (*) step. An asterisk step in a procedure denotes action required to maintain Technical Specifications (TS) requirements. Therefore, MCR personnel determined that there was no immediate operability concern.

The Shift Manager reported the failed ST procedure to the on duty Senior Plant Staff member, on the morning of October 26, 1991. However, the ST procedure was not signed off by the Senior Plant Staff member at that time because questions arose regarding a separate plant issue which required immediate attention. The failed ST procedure was set aside for further review by the Senior Plant Staff Member to occur on Monday, October 28, 1991. On October 28, 1991, at 0830 hours, the ST procedure was signed off unsatisfactory by the Senior Plant Staff member. On October 29, 1991, during routine review of the failed ST procedure, a technical staff member determined that, since the 11-0063 valve serves as a boundary between the ESW and SW systems, reverse leakage through the valve would render the 'A' Loop of the ESW system inoperable. Based on this determination, the technical staff member immediately notified the licensed MCR Shift Supervisor. At 1430 hours, further troubleshooting was performed and the system engineer verified that the leakage through the 11-0063 check valve was above the Inservice Testing (IST) program limit of 10 gpm. Following the troubleshooting, operations personnel closed manual valve 11-2070 at 1600 hours and isolated the SW to ESW system interface (See Figure 1). This restored the 'A' Loop of the ESW system and associated equipment to an operable status.

Reason for the Violation

The causes of the failure to document the malfunction of check valve 11-0063 with the initiation of a Maintenance Request Form (MRF) were personnel errors where operations personnel failed to follow procedures. This event identified several weaknesses in the surveillance test program as contributing causal factors.

The initiation of prompt corrective actions was identified as a weakness during this event. MCR personnel failed to review the equipment history of the system check valve and assumed that the condition was previously identified. Consequently, no Equipment Trouble Tag (ETT) was initiated to document this deficient condition.

The licensed operators and senior licensed operators did not have an appreciation for the significance of surveillance test criteria designated as (I). Furthermore, the understanding of this criteria was not viewed with the same priority in terms of system

operability as criteria that meet specific TS requirements, designated by an asterisk (*). This condition was attributed to less than adequate training associated with the IST program.

The reporting of surveillance test failures to the on duty Senior Plant Staff member was found to be deficient. The test failure identified by this violation was reported to the on duty Senior Plant Staff member on the following morning. Because the staff member failed to sign the test after being distracted by nonrelated plant events, the test was placed in a bin for signature on Monday morning. A review of station administrative controls identified a weakness in the definition of what constitutes an immediate notification for test failures and the expectations of on duty Senior Plant Staff members with regard to test failures. The process of notifying on duty Senior Plant Staff members is a final barrier for assuring that proper considerations have been given to establishing operability determinations and initiation of appropriate corrective actions.

Corrective Action and Results Achieved

A Maintenance Request Form was written on October 29, 1991, and the ESW system check valve 11-0063, was repaired on November 19, 1991.

Corrective Actions Taken to Avoid Future Non-Compliance

The following corrective actions were developed in response to two separate incidents involving failures to initiate corrective actions. The other event occurred in September, 1991 and involved the RHRSW system. The corrective actions described below were taken in response to both events and began on October 30, 1991. These have been reported in our response to NRC violation 50-352/91-18-01, 50-353/91-19-01 dated December 9, 1991, with the exception of the corrective actions concerning (I) steps, which are specific to this ESW system event.

- In immediate response to this event, on October 30, 1991, operations personnel were informed of the event via Shift Night Orders and a recorded phone message emphasizing the importance of promptly initiating corrective actions. The requirement to promptly determine component operability if an (I) step fails was also stressed.

- On November 4, 1991, a letter from the Plant Manager to all licensed Senior Reactor Operator operations personnel was issued reiterating management's expectations of initial response to equipment malfunctions. This letter stated that 1) equipment deficiencies must immediately be captured in the corrective action process which assures that an appropriate

response is taken, 2) notations concerning equipment problems on ST procedures are not adequate corrective actions, 3) failed (I) steps require that an immediate operability determination be made, and 4) when equipment included in the TS is considered operable while an operability determination is in process, the operations organization is responsible to assure that the evaluation is done as quickly as possible. This information was discussed at an operations shift supervision meeting on November 5, 1991 and during licensed operator requalification training. A second letter was issued by the Plant Manager to all Senior Plant Staff members reminding them to take a critical, objective view when evaluating failed surveillance tests.

- On November 4, 1991, a For Your Information (FYI) notice was developed and distributed to first line supervision. This FYI notice provided a clear and concise set of written management expectations regarding the immediate corrective actions required to be promptly implemented upon discovery of deficient plant equipment. First line supervision then disseminated the expectations of management in this FYI to appropriate station personnel to heighten their awareness of the requirements and management's expectations.

- On December 1, 1991, Limerick Generating Station implemented the Plant Information Management System (PIMS). This system ensures that an ETT that is generated for an equipment problem results in a computerized Action Request. The Action Request must be evaluated by the responsible organization and, if necessary, a Work Order is generated. This ensures tracking of problem investigation even before sufficient information is available to generate a specific work order.

- On January 30, 1992, operations management clarified the immediate reporting requirements for failed surveillance tests in that on duty Senior Plant Staff members are to be notified within nominal eight hours of test failure. Management re-emphasized the need to clearly document unacceptable surveillance test data. This information has been communicated to all licensed and non-licensed operators as well as Senior Plant Staff.

- On February 6, 1992, due to a concern with the proper operation of a motor operated valve, operations management reaffirmed the need to initiate prompt corrective actions (e.g., issue an ETT) for any equipment problems that are encountered. This information was issued for all licensed and non-licensed operators to read and sign.

- Licensed operator initial and requalification training will be revised to incorporate training relevant to implementation of the ISI program requirements through ST procedures. This is expected to be completed by March 31, 1992.

- Operations Manual Chapter 6.1, "Operations Surveillance Test Guidelines," will be revised by February 28, 1992. This revision will provide guidance to Shift Management for issuing notifications to Senior Plant Staff members on-call regarding surveillance test failures. This guidance will include a definition of what constitutes an immediate notification for test failures.

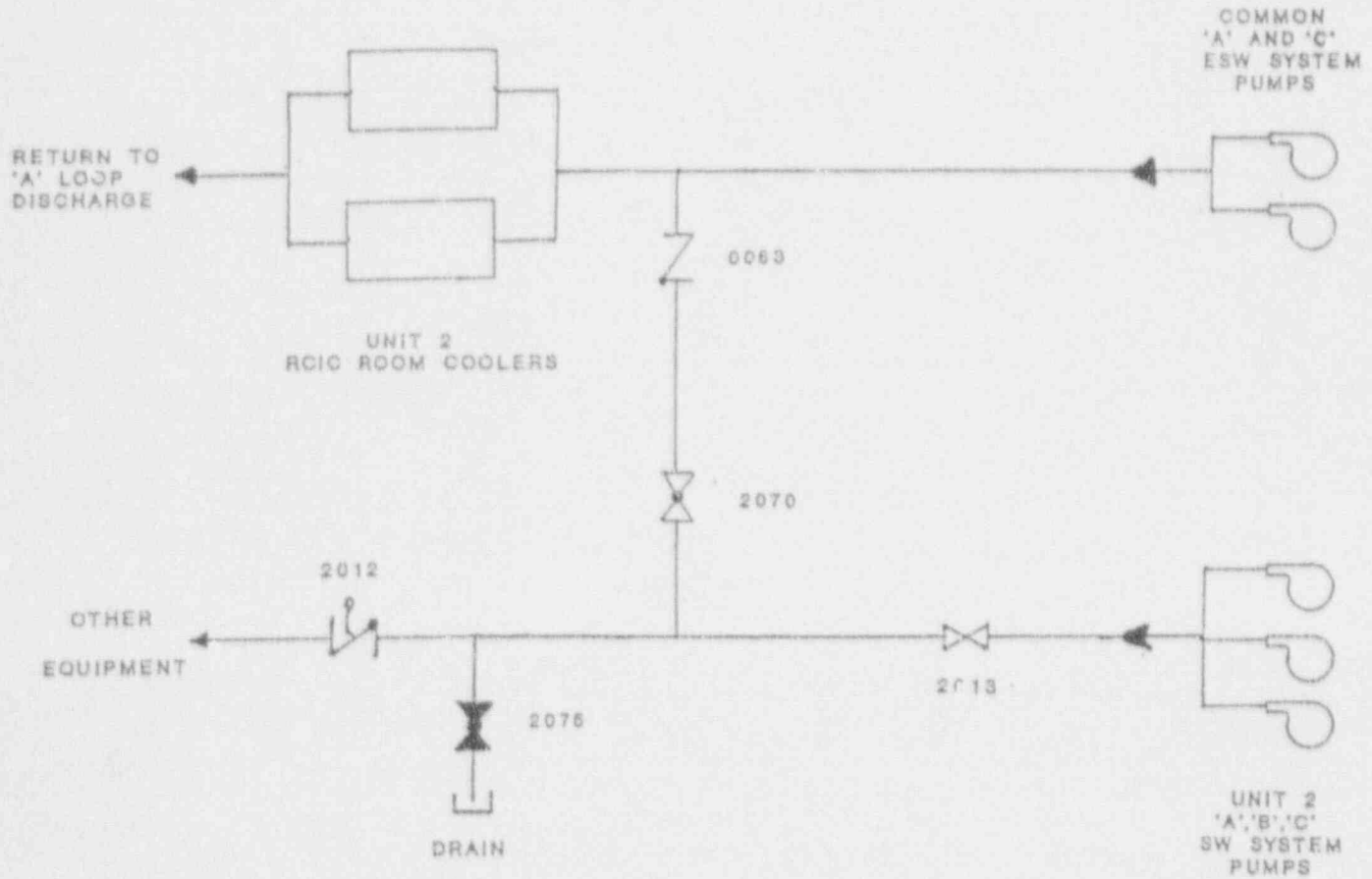
- Administrative Guideline AG-41, "Staff Duty Stander," will be revised by February 28, 1992 to include management's expectation to ensure immediate operability determinations following the failure of (I) steps and to ensure corrective action measures are initiated.

- Administrative procedure, A-26, "Procedure for Plant Maintenance Using the Maintenance Request Form," has been reviewed, along with operations personnel training on A-26, and both the procedure and the training were determined to be adequate.

Date When Full Compliance was Achieved

Full compliance was achieved on October 29, 1991, when a MRF was written on valve 11-0063; the valve was repaired and declared operable on November 19, 1991.

Figure 1


COMMON
'A' AND 'C'
ESW SYSTEM
PUMPS
RETURN TO
'A' LOOP
DISCHARGE
0063
UNIT 2
RCIC ROOM COOLERS
2070
2012
OTHER
EQUIPMENT
2013
2076
DRAIN
UNIT 2
'A','B','C'
SW SYSTEM
PUMPS