

JUN 06 1989

Docket No. 50-352

Philadelphia Electric Company
ATTN: Mr. C. A. McNeill, Jr.
Executive Vice President
Nuclear
Correspondence Control Desk
P.O. Box 7520
Philadelphia, PA 19101

Gentlemen:

Subject: Inspection No. 50-352/89-06

This refers to your letter dated April 19, 1989, in response to our letter dated March 20, 1989 which transmitted a violation for failure to maintain a fire rated barrier between the Limerick Unit 1 and Unit 2 cable spreading rooms.

Thank you for informing us of the corrective and preventive actions documented in your letter. These actions will be examined during a future inspection of your licensed program.

Your cooperation with us is appreciated.

Sincerely,

Original Signed By:
Jack R. Strosnider

Jack R. Strosnider, Chief
Engineering Branch
Division of Reactor Safety

cc w/encl:

J. S. Kemper, Sr., Senior Vice President - Nuclear Construction
G. M. Leitch, Vice President - Limerick Generating Station
S. J. Kowalski, Vice President - Nuclear Engineering
D. R. Helwig, General Manager - Nuclear Services
M. J. McCormick, Jr., Manager - Limerick Generating Station
W. T. Ullrich, Manager - Limerick Unit 2 Startup
A. S. MacAinsh, Manager - Limerick Quality Division
G. A. Hunger, Jr., Director - Licensing Section
T. B. Conner, Jr., Esquire
E. J. Bradley, Esquire, Assistant General Counsel
H. D. Honan, Branch Head - Nuclear Engineering Licensing
Public Document Room (PDR)
Local Public Document Room (LPDR)
Nuclear Safety Information Center (NSIC)
NRC Resident Inspector
Commonwealth of Pennsylvania

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JUN 06 1989

Philadelphia Electric Company

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bcc w/encl:

Region I Docket Room (with concurrences)

~~Management Assistant, DRMA (w/o encl)~~

Section Chief, DRP

Robert J. Bores, DRSS

C/A for
RI:DRS

Krasopoulos/pmb

6/2/89

C/A
RI:DRS

Anderson

6/2/89

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RL LIM 89-06 - 0002.0.0
06/02/89

PHILADELPHIA ELECTRIC COMPANY

LIMERICK GENERATING STATION

P. O. BOX A

SANATOGA, PENNSYLVANIA 19464

April 19, 1989

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

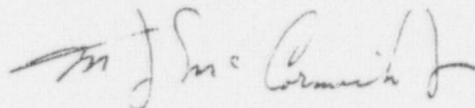
U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

SUBJECT: Limerick Generating Station, Unit 1
Reply to a Notice of Violation
NRC Combined Inspection Report Nos. 50-352/89-06
and 50-353/89-06

NRC letter dated March 20, 1989, forwarded Combined Inspection Report Nos. 50-352/89-06 and 50-353/89-06 for the Limerick Generating Station, Units 1 and 2. This Inspection Report contained a Unit 1 Notice of Violation concerning the failure to maintain a fire rated barrier between the Unit 1 and Unit 2 Cable Spreading Rooms. Our response to this Violation is provided in the attachment to this letter.

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

Very truly yours,



M. J. McCormick, Jr.
Plant Manager

DMS:sc

Attachment

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

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HOP

Violation:

License Condition C.(3) Fire Protection, stipulates that the licensee shall maintain in effect all provisions of the approved Fire Protection program described in the Fire Protection Evaluation Report.

The Fire Protection Evaluation Report, in Section 3.1.1, Item 38, states that 3 hour fire barriers are provided to separate Unit 1 structures from Unit 2 structures, and common structures such as the control structure are separated from the adjacent structures of both reactor enclosures by 3 hour fire barriers.

Contrary to the above, a door separating the Unit 1 cable spreading room from the Unit 2 cable spreading room was not 3 hour fire rated.

The door was not rated because it could only stay latched closed by the use of electromagnets. Loss of power to the magnetic contacts as a result of a fire in either cable spreading room could render the door and the entire barrier inoperable.

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

Response:

Admission of Alleged Violation:

Philadelphia Electric Company acknowledges the violation.

Reason for the Violation:

The cause of this condition was inadequate consideration of fire protection aspects in the design of a modification.

Door 381 separating the Unit 1 Cable Spreading Room (CSR) from the Unit 2 CSR was not providing a 3 hour fire rated barrier, because the mechanical latching mechanism was removed and replaced with a electromagnetic latch in accordance with a modification designed and completed on October 18, 1984.

In October of 1984, during Unit 1 Start Up/Unit 2 construction, Unit 2 enclosures were open to the atmosphere to allow for construction activities. The Unit 2 CSR had many wall and floor openings to allow cable pulling operations. Since the Unit 2 CSR was open to the atmosphere, a tornado depressurization could create a differential pressure of 1.5 psi across the wall separating the Unit 1 CSR from the Unit 2 CSR. This wall, which forms the Unit 1/Unit 2 boundary, is designed to withstand only 0.87 psi. In order to protect the Unit 1 CSR, door 381 was modified such that it would open into the Unit 2 CSR when subjected to the tornado depressurization effect. The modification equipped door 381 with a magnetic lock and pressure activated switch to ensure that the door would open at a differential

pressure of 0.75 to 0.80 psi. Overlooked by the Philadelphia Electric Company (PECo) and the Architect/Engineer (A/E) design groups was the fact that loss of power to the electromagnetic latch as a result of a fire in either CSR, could render the door and the entire fire barrier inoperable.

Corrective Actions Taken and Results Achieved:

When the problem with door 381 was identified by the NRC inspector during the special team inspection, the fire door was declared inoperable requiring a roving fire watch in accordance with Technical Specification (TS) 3.7.7, "Fire Rated Assemblies." It should be noted that a roving fire watch had already been established in both CSRs since December 3, 1986, due to the Unit 2 construction activities.

Door 381 is being replaced with a new United Laboratories (UL) listed door that uses a mechanical latching mechanism rather than a electromagnetic latch, to secure the door. The new door complies with the Fire Protection Evaluation Report (FPER), such that a fire in either CSR will have no affect on the door's ability to function as a fire barrier. Additionally, all penetrations entering the Unit 2 CSR are sealed, and the effects of a tornado depressurization to this room is no longer a concern. Door 381 is scheduled to be replaced by April 24, 1989. The roving fire watch will remain in effect until door 381 has been replaced.

Corrective Actions Taken to Avoid Future Non-Compliance:

Upon review of the procedures and mechanism's used in the development of modifications prior to the issuance of the Unit 1 Low Power License (October 26, 1984), it has been determined that procedural control existed to direct that modifications would be appropriately reviewed for fire protection concerns. The failure of the design groups to recognize the impact of this modification on fire protection is considered to be an isolated occurrence related to the modifications emphasis on structural integrity.

Subsequent to issuance of the Unit 1 Low Power License on October 26, 1984, PECO engineering assumed full responsibility for design and approval of safety related modifications with the A/E assisting in the design process. To enhance the design review process, a fire protection review checklist has been incorporated into PECO engineering and the A/E modification procedures. This checklist is used in the review of modifications to assure that fire protection requirements and concerns are reviewed.

A review was performed on all Unit 1 and Common 3-hour fire rated doors required by the FPER. Two additional doors were identified which contained similar electromagnetic latches. But, these doors still contain the mechanical latching mechanisms which can be used to

maintain the fire barriers in the event of loss of power. Additionally, these doors do not separate safe shut down areas. A sign will be posted on these doors by April 24, 1989, instructing that the door be mechanically latched shut in the event of a fire in the area. The appropriate pre-fire strategy plans, will be revised by May 15, 1989, to include instructions to latch these doors closed.

Prior to Unit 2 Start-Up, all fire doors or barriers interfacing with Unit 1 or protecting Unit 2 areas, will be inspected prior to acceptance by the Plant Fire Protection group to assure compliance with the FPER.

Date When Full Compliance Will be Achieved:

Door 381 is expected to be operable on April 24, 1989.