

BEFORE THE

UNITED STATES NUCLEAR REGULATORY COMMISSION

In the Matter of :  
PHILADELPHIA ELECTRIC COMPANY : Docket Nos. 50-277  
: 50-278

AMENDMENT TO  
FEBRUARY 21, 1985  
APPLICATION FOR AMENDMENT  
OF  
FACILITY OPERATING LICENSES  
DPR-44 & DPR-56

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On February 21, 1985, Philadelphia Electric Company ("Licensee") submitted an Application for Amendment of Facility Operating Licenses DPR-44 and DPR-56 requesting changes to the Technical Specification that: (1) incorporated additional fire detectors into the table identifying the detectors subject to the operability and surveillance requirements of the Technical Specifications, and (2) modified the fire barrier surveillance requirements to reflect the guidance provided by the Standard Technical Specifications.

The proposed changes conformed to the Standard Technical Specifications (STS) issued for use in preparing the Limerick Generating Station Technical Specifications except for eight deviations as described in the Application. Subsequently, the NRC, following its review of the Application, requested three revisions to the Application to conform with the STS. This Amendment to the February 21, 1985 Application for Amendment addresses the requested revisions, as well as two further minor revisions.

Accordingly, Licensee hereby amends its Application of February 21, 1985, by deleting from the Application pages 240i, 240j(1), 240j(2), and 240p(1) and substituting therefor updated pages 240i, 240j(1), 240j(2), and 240p(1), which are attached hereto and incorporated herein by reference. The revisions to the original Application are indicated by a vertical bar in the margin of the updated pages and are described below:

1. Minor editorial and typographical revisions are requested for Specification 3.14.C.2.b (page 240i) to insert the missing word "or" and to change "Commission" to "NRC" to reflect the proper nomenclature.
2. The original Application added a surveillance requirement to test a thermal heat detection cable system installed in the cable trays located above the control room ceiling without identifying the detector in the list of fire detectors (Table 3.14.C.1). This Application requests a revision to page 240p(1) to

incorporate the thermal heat detection cable system into Table 3.14.C.1.

3. The original Application proposed a deviation from the STS by requesting an operability test of the fire door supervision system on quarterly intervals rather than monthly intervals. This Application requests the test interval to be changed to monthly as shown on page 240j(2) to conform with the STS.
4. The original Application proposed a deviation from the STS by requesting that "approximately 10 percent of the fire barrier penetration seals" be subjected to an inspection every 18 months. This Application requests that the specification be changed to read, "at least 10 percent of each type of fire barrier penetration seal" as shown on page 240j(1) to conform with the STS.
5. The original Application proposed a deviation from the STS by requesting that 10 percent of the fire dampers be inspected every 18 months rather than all fire dampers as specified in the STS. This Application requests that the scope of 18-month fire damper inspections, as shown on page 240j(1), be increased to include all the dampers that do not require scaffolding for inspection or present ALARA concerns, and 25 percent of the excluded dampers such that each of the excluded dampers are inspected once per 6 years.

Of the approximately 100 dampers subjected to these surveillance requirements, approximately 70 dampers would be inspected every 18 months in accordance with proposed specification 4.14.D.1.b. An estimated 31 dampers would be inspected over a six-year period (25% every 18 months) in accordance with proposed specification 4.14.D.1.c. Fourteen of these dampers would present ALARA concerns since they are either located in ventilation systems taking suction from potentially contaminated areas, or are located in radiation areas. The other 17 dampers subject to the surveillance provisions of 4.14.D.1.c require scaffolding for inspection. The bases for the testing frequency deviation from the STS for approximately 31 dampers are as follows:

- a) Approximately seventeen of the fire dampers are not readily accessible and require scaffolding with a height of 20 feet or more. The need for scaffolding creates the possibility for physical damage to equipment, instruments, and cables during its erection, removal, and use. Consequently, the use of scaffolding represents a potential hazard to safety-related equipment and personnel. The hazard is further compounded by the unlikelihood that any equipment damage in the vicinity of the damper will be detected following the damper inspection due to the remoteness and inaccessibility of the area.

- b) Approximately nine of the fire dampers are installed in ventilation systems which serve radiation areas. Over time, the associated duct work in which these dampers are located has become contaminated. Inspection of these fire dampers will require the ventilation system to be shutdown and, in some areas, will require enclosures to be constructed around the work area, with control of airborne contamination using HEPA filter units. Accessibility to approximately five other dampers requires entry into radiation areas. In order to minimize ALARA concerns, inspection of these dampers over a six-year period is requested.
- c) The fire dampers are within the ventilation duct at duct locations that, in most cases, are not readily accessible. This inaccessibility minimizes the possibility of tampering and abuse.
- d) The proposed specification (4.14.D.1) requires that an inspection be performed on fire barrier components following modification or maintenance to the barrier component. The STS does not require that such an inspection be performed. An inspection after maintenance or modification will provide verification that fire barrier components have been properly repaired or installed. All work involving fire barriers will be reviewed and approved through the use of the Maintenance Request Form. The ventilation duct penetrations housing fire dampers are labeled so that personnel are aware of

their location. Consequently, a potential element which may contribute to an inadvertent violation of fire barrier integrity is eliminated.

- e) Under the fire damper surveillance program in effect since 1981 at Peach Bottom, only one damper failed the visual inspection; and in this one case, a test demonstrated the damper to be functional. This demonstrates the low failure rate experienced for fire dampers at Peach Bottom.

The proposal of this Application to increase the scope of fire damper inspections renders the expanded testing provisions on page 240j(2) obsolete for fire dampers. For this reason, the expanded testing provisions are revised to apply only to penetration seals.

#### Significant Hazards Consideration Determination

The proposed change to add the thermal heat detection cable system to the operability and surveillance requirements in the Technical Specification requirements for fire detectors does not involve a significant hazards consideration since it does not:

- (1) involve a significant increase in the probability or consequences of an accident previously evaluated because the consequences of the previously evaluated control

room fire (Alternative Shutdown Capability Assessment, submitted to the NRC on September 16, 1983) are not impacted by the heat detector, and the probability of the postulated control room fire is significantly lessened by the addition of the heat detector.

- (2) create the possibility of a new or different kind of accident from any accident previously evaluated because there is no credible mechanism whereby a heat detector will result in a different kind of accident.
- (3) involve a significant reduction in a margin of safety because the presence of a heat detector provides for early detection and fire damage mitigation; consequently, the margin of safety associated with fire protection has been enhanced.

The proposed change to inspect 10 percent of each type of fire barrier penetration seal ensures that a representative sample of each type of penetration seal is being periodically monitored to assure the integrity of the fire barriers essential to plant safety. Broad protection of all penetrations is maintained by the Technical Specification that triggers additional inspections in the event penetration seal degradations are found. The Specification, as proposed, is consistent with the NRC guidance provided in the Standard Technical Specifications. This change does not involve a significant hazards consideration since it does not:



- (1) involve a significant increase in the probability or consequences of an accident previously evaluated because this surveillance requirement assures the integrity of the penetration seals essential to mitigating the consequences of a fire.
- (2) create the possibility of a new or different kind of accident from any accident previously evaluated because the scope of a surveillance program does not establish a potential new accident precursor.
- (3) involve a significant reduction in a margin of safety because the proposed surveillance program performs its intended function while minimizing the exposure of safety equipment to potential physical damage due to the inspection process.

The proposed change to perform a monthly operability test of the fire door supervision system represents a new surveillance requirement and conforms to the STS. Licensee has concluded, in accordance with Section 50.92 of the Commission's regulations, that this change does not involve a significant hazards consideration since it does not:

- (1) involve a significant increase in the probability or consequences of an accident previously evaluated because this new surveillance requirement reduces the

consequences of a fire and has no impact on accident probability.

- (2) create the possibility of a new or different kind of accident from any accident previously evaluated because the nature of this surveillance test does not establish a potential new accident precursor.
- (3) involve a significant reduction in a margin of safety because the new surveillance requirement is intended to assure the operability of fire door barriers, and consequently enhances the safety margin.

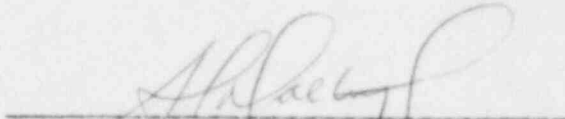
The proposed change to inspect 25 percent of the fire dampers requiring scaffolding for inspection, or involving ALARA concerns, every 18 months, does not involve a significant hazards consideration for the reasons previously enumerated in this application and because it does not:

- (1) involve a significant increase in the probability or consequences of an accident because the surveillance requirement for fire dampers assures the integrity of the fire barrier essential to mitigating the consequences of a fire.
- (2) create the possibility of a new or different kind of accident from any accident previously evaluated because the scope of a surveillance program does not establish a potential new accident precursor.

- (3) involve a significant reduction in a margin of safety because the scope of the proposed inspection assures fire damper integrity while minimizing the exposure of safety-related equipment to potential physical damage due to the inspection process.

The Plant Operations and Review Committee and the Nuclear Review Board have reviewed the proposed changes to the Technical Specification and have concluded that they do not involve an unreviewed safety question or significant hazard consideration, and will not endanger the health or safety of the public.

Respectfully submitted,  
PHILADELPHIA ELECTRIC COMPANY

  
\_\_\_\_\_  
Vice President


COMMONWEALTH OF PENNSYLVANIA :

: ss.

COUNTY OF PHILADELPHIA :

S. L. Daltroff, being first duly sworn, deposes and says:

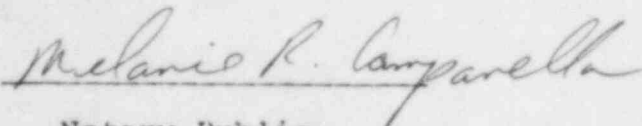
That he is Vice President of Philadelphia Electric Company, the Applicant herein; that he has read the foregoing Application for Amendment of Facility Operating Licenses and knows the contents thereof; and that the statements and matters set forth therein are true and correct to the best of his knowledge, information and belief.

  
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Subscribed and sworn to

before me this 22<sup>nd</sup> day

of April, 1986

  
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Notary Public

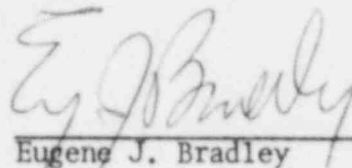
MELANIE R. CAMPANELLA

Notary Public, Philadelphia, Philadelphia Co.

My Commission Expires February 12, 1990

CERTIFICATE OF SERVICE

I certify that service of the foregoing Amendment was made upon the Commonwealth of Pennsylvania, by mailing a copy thereof, via first-class mail, to Thomas R. Gerusky, Director, Bureau of Radiological Protection, P. O. Box 2063, Harrisburg, PA 17120; all this 22nd day of April, 1986.



Eugene J. Bradley

Attorney for  
Philadelphia Electric Company