

BEFORE THE

UNITED STATES NUCLEAR REGULATORY COMMISSION

In the Matter of

:
:
:

Docket No. 50-277
50-278

PHILADELPHIA ELECTRIC COMPANY

APPLICATION FOR AMENDMENT
OF
FACILITY OPERATING LICENSES
DPR-44 & DPR-56

Edward G. Bauer, Jr.
Eugene J. Bradley

2301 Market Street
Philadelphia, Pennsylvania 19101

Attorneys for
Philadelphia Electric Company

8409210221 840919
PDR ADOCK 05000277
P PDR

BEFORE THE

UNITED STATES NUCLEAR REGULATORY COMMISSION

In the Matter of

:
:
:

Docket No. 50-277
50-278

PHILADELPHIA ELECTRIC COMPANY

APPLICATION FOR AMENDMENT
OF
FACILITY OPERATING LICENSES
DPR-44 & DPR-56

Philadelphia Electric Company, Licensee under Facility Operating Licenses DPR-44 and DPR-56 for the Peach Bottom Atomic Power Station Unit No. 2 and Unit No. 3, respectively, hereby requests that the Technical Specifications contained in Appendix A of the Operating Licenses be amended by revising Table 3.2.B as indicated by a vertical bar in the margin of attached page 67. The revision reflects a proposed modification to the Automatic Depressurization System (ADS) required to comply with Item

• II.K.3.18 of NUREG-0737, "Clarification of TMI Action Plan Requirements".

NUREG-0737, Item II.K.3.18, requested modification of the ADS actuation logic to minimize the need for manual actuation to assure adequate core cooling. Philadelphia Electric Company participated in the BWR Owners' Group program to develop and submit proposed design changes to the NRC. By correspondence dated June 3, 1983 (J. F. Stolz, NRC, to E. G. Bauer, Jr., PECO), the staff, among other things, approved two design proposals suggested by the Owners' Group. Licensee committed to implement option (2) as approved by the NRC, i.e. (a) the addition of a timer that bypasses the high drywell pressure permissive after a specific time interval following receipt of a low reactor water level signal, and (b) the addition of a manual inhibit switch. This application proposes an appropriate Technical Specification change requested in the June 3, 1983 correspondence.

The ADS is currently activated automatically upon coincident signals of (1) low water level in the reactor, (2) high drywell pressure, and (3) low pressure ECCS pumps running. For transient and accident events which do not directly produce a high drywell pressure signal and are degraded by a loss of all high pressure injection systems, adequate core cooling is assured by manual depressurization of the reactor followed by injection from the low pressure systems. To reduce the dependence on operator action and to

satisfy Item II.K.3.18 of NUREG-0737, Licensee proposes to modify the ADS control logic as shown by the broken lines on Figure 1 of this application.

The high drywell pressure initiation signal is bypassed by installing a bypass timer that is actuated by low reactor water level (level 1). The low reactor water level signal will be sealed in so that the bypass timer will not automatically reset. When this timer times out, the high drywell pressure signal will be bypassed and the ADS will be initiated on a low reactor water level signal alone.

Each of the four existing drywell pressure instrument channels has its own bypass circuit. The reset of the sealed-in low reactor water level signal is performed by the same switches that originally reset the high drywell pressure seal-in.

A manual inhibit switch is added to each of the two ADS initiation logics. The manual inhibit switches are located on a control room panel near the controls for the safety relief valves. A keylocked switch is used for the manual inhibit function to provide a means of limiting the potential for inadvertent actuation of the manual inhibit. Alarms alert the operator of time-out of the bypass timer and activation of the manual inhibit.

A design analysis was performed to determine the delay setting for the new bypass timer. The analysis showed

that a setting of ten minutes or less will assure adequate core cooling for transient or accident events which may require rapid depressurization. The study evaluated the limiting event of a main steam line break outside the containment, with the goal of limiting the maximum peak clad temperature to 1500 degrees F, using 10 CFR Appendix K models. The analysis also confirmed that an 8-minute time delay or more provides sufficient time to allow recovery of reactor water level above level 1 to prevent undesirable automatic initiation during an anticipated transient without scram (ATWS) event. This is based on computer analyses that confirmed the ability of the High Pressure Coolant Injection (HPCI) system to maintain the reactor water level above level 1 during an ATWS event with no operator action.

Based on the analysis, an allowance for inaccuracy of the timer (plus or minus 5%), and an allowance for timer setpoint drift (plus or minus 5%), a time delay of 9 minutes (plus or minus 1 minute) was chosen for the high drywell pressure bypass logic. In the event of an ATWS event, this setting, when combined with the existing 105 second timer in the ADS logic, allows sufficient time for the operator to correctly diagnose the plant conditions and follow the emergency operating procedures to manually inhibit the ADS.

All design requirements applicable to the original ADS equipment and circuitry were applied to this modification. These requirements include, but are not

limited to; environmental qualification, seismic qualification, separation criteria, quality assurance, and testability. The modification has a negligible effect on bus loading.

Accordingly, Licensee requests a revision to Table 3.2.B (page 67) of the Technical Specifications that would incorporate a surveillance requirement for the ADS Bypass Timer. Additionally, Licensee requests that the title of the "Auto Blowdown Timer" be changed to "ADS Actuation Timer" in order to correctly identify the function of the timer. A change is not necessary to Table 4.2.B regarding surveillance requirements since the new timer is considered an auto sequencing timer and hence is covered by the requirements presently contained in the table. Further, Licensee requests that this amendment take effect upon completion of the modification described herein. As stated in correspondence dated July 15, 1983 (S. L. Daltroff, PECO, to J. F. Stolz, NRC), the modifications will be implemented during the first refueling outage, for each unit, commencing after issuance of the requested amendment.

Significant Hazards Consideration Determination

This application does not reduce the requirements of the current Technical Specification. The proposed change constitutes an additional Limiting Condition of Operation and surveillance requirement for a new safety system component.

The change reflects a modification needed to meet an NRC requirement in NUREG-0737, "Clarification of TMI Action Plan Requirements". The Commission has provided guidance concerning the application of the standards for determining whether license amendments involve no significant hazards considerations by providing certain examples (48 FR 14870). Two of the examples (ii and vii) of actions involving no significant hazards consideration are: (1) a change that constitutes an additional limitation, restriction, or control not presently included in the Technical Specifications, and (2) a change to make a license conform to changes in the regulations where the license change results in very minor changes to facility operations clearly in keeping with the regulations. The proposed change to Table 3.2.B to add the new ADS bypass timer fits both of these examples of an action not involving a significant hazards consideration.

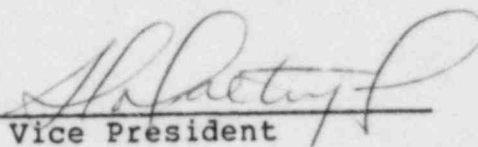
Consequently, Licensee has concluded, in accordance with NRC Guidance (48 FR 14870) and the provisions of Section 50.92 of the Commission's regulations, that this change does not constitute a significant hazards consideration since it does not:

- (1) involve a significant increase in the probability or consequences of an accident previously evaluated or,
- (2) create the possibility of a new or different kind of accident from any accident previously evaluated, or

- (3) involve a significant reduction in a margin of safety.

The Plant Operating Review Committee and the Nuclear Review Board (off-site safety review committee) have reviewed this proposed change to the Technical Specifications and have concluded that it does not involve an unreviewed safety question or a significant hazard consideration and will not endanger the health and 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.



Subscribed and sworn to
before me this ^{18th} day
of September 1984

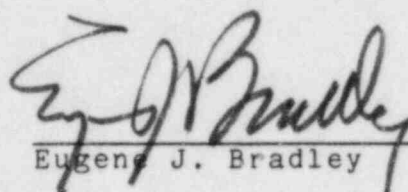


Notary Public

PATRICIA D. SCHOLL
Notary Public, Philadelphia, Philadelphia Co.
My Commission Expires February 10, 1986

CERTIFICATE OF SERVICE

I certify that service of the foregoing Application 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 19th day of September, 1984.



Eugene J. Bradley

Attorney for
Philadelphia Electric Company