

BEFORE THE

UNITED STATES NUCLEAR REGULATORY COMMISSION

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

AMENDMENT TO JULY 31, 1979
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

8406070032 840604
PDR ADOCK 05000277
P PDR

BEFORE THE
UNITED STATES NUCLEAR REGULATORY COMMISSION

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

AMENDMENT TO JULY 31, 1979
APPLICATION FOR AMENDMENT
OF
FACILITY OPERATING LICENSES
DPR-44 & DPR-56

On July 31, 1979, Philadelphia Electric Company, Licensee under Facility Operating License DPR-44 and DPR-56 for Peach Bottom Units 2 and 3, filed an Application for Amendment of the Licenses which requested that the Technical Specifications contained in Appendix A of the Operating Licenses be amended by making certain changes relating to the primary containment purge supply and exhaust valves. The requested changes to the Technical Specifications would have limited the use of the 18-inch containment purge and vent valves to 90 hours per year during those periods when the potential for a design basis Loss-of-Coolant Accident is present.

Subsequently, the NRC staff, by correspondence dated December 12, 1983 (J. F. Stolz, NRC, to E. G. Bauer, Jr., Philadelphia Electric Company) requested the Licensee (1) to modify the Standby Gas Treatment System (SGTS) and associated duct work to withstand the pressure differential that develops across the filters during the postulated design basis accident with the 18-inch containment purge and vent valves in the open position; or (2) to incorporate the following purging restrictions into the Technical Specifications:

- (a) Limit the use of the 18-inch purging system to 90 hours per year in the power, startup, and hot shutdown modes.
- (b) Whenever the purge system is in use during the power, startup, and hot shutdown modes, only one of the two SGTS trains will be used.
- (c) Both SGTS trains are determined to be operable whenever the purge system is in use.

As stated in the NRC's December 12, 1983, letter, the alternate approach is based on reducing the plant risk contribution to public health and safety due to SGTS failure by placing restrictions on purge and vent operations through the 18-inch purge lines.

Additionally, the NRC's December 12, 1983, letter requested the Licensee to submit an application for a change to its Technical Specifications addressing each item in a Standard Technical Specifications (STS), and/or a justification why a

particular item is inappropriate, in regards to its application to the 18-inch containment purge and vent valves. The STS was previously submitted as Enclosure 3 to correspondence dated July 7, 1982 (J. F. Stolz, NRC, to E. G. Bauer, Jr., Philadelphia Electric Company).

Accordingly, Philadelphia Electric Company, Licensee under Facility Operating Licenses DPR-44 and DPR-56 for Peach Bottom Atomic Power Station Units 2 and 3, respectively, hereby amends its Application of July 31, 1979, by deleting the proposed Technical Specification pages 171a, 190a and 202 referred to in the July 31, 1979, Application, and substituting therefor updated pages 177, 178, 178a, and 202, which are attached hereto and incorporated herein by reference. Additionally, Licensee requests that the effectiveness of the amendment be deferred up to two months following issuance to accomodate revisions to any plant procedures required to implement the amendment. A discussion of the proposed revisions to the Operating License follows:

I. Restrictions on Containment Purging

Licensee proposes to implement the alternative solution involving additional Technical Specification restrictions on the use of the 18-inch containment purge and vent valves. The restrictions as proposed on page 178 (Specification 3.7.E.2) vary from the NRC criteria described above in two respects. However, the proposed version meets the intent of

the NRC guidance to limit plant risks resulting from a design basis loss-of-coolant accident while purging, and the resultant failure of the SGTS.

The first variation from the NRC criteria would limit the 90-hour restrictions to plant operation with the reactor pressure greater than 100 psig, the reactor critical and the reactor mode switch in the "Startup" or "Run" mode. The NRC criteria applied the restrictions to the "Run", "Startup", and "Hot Shutdown" modes. The generic concerns, as discussed in the NRC's Safety Evaluation (Enclosure 1 of December 12, 1983, letter, J. F. Stolz, NRC, to E. G. Bauer, Jr.), involve the performance of the containment purge and vent valves during the dynamic loads of a design basis loss of coolant accident (DBA - LOCA). The proposed application of the 90-hour restriction would not apply to those periods of operation when the reactor pressure is less than 100 psig because of the low likelihood of having a LOCA at reduced pressure conditions. Additionally, since only one Standby Gas Treatment System (SGTS) train will be in service when purging containment, the potential for a SGTS failure is minimized.

The second variation would (1) permit a combined total purging time of 180 hours per year for both units, and (2) permit unused time (difference between 180 hours and actual annual purging time) to be carried over to subsequent years, provided the total purging time for the facility in any one

year does not exceed 270 hours. The NRC's 90-hour per unit purging restriction is equivalent to 1% of a calendar year. A plant (2 units) limit of 180 hours per year would maintain an average annual purging time of 90 hours per unit. The carry-over provision would permit the utilization of unused purging time during subsequent years without exceeding a long term average annual purging time of 90 hours per unit. Therefore, the long term risk associated with purging would not be increased.

The flexibility of using unused hours in following years of the 90-hour limit as described above would permit a more meaningful inspection of the primary coolant system for leaks during plant startup and shutdown. This inspection is normally performed at a system pressure of approximately 500 psig. Applying the 90 hour limit without the proposed flexibility would most likely result in occasions when the 90 hour limit is attained prior to the last plant outage in a calendar year. In this situation, the large purge and vent valves would be prohibited from being opened to establish drywell habitability. Consequently, a visual inspection for leaks in the primary coolant system while at approximately 500 psig would be precluded during the remaining plant outages for that year.

Licensee requests that the computation of carry-over time start at the beginning of the calendar year in which this amendment application is approved. In conclusion, the

proposed purging limits would ensure that the average annual purging time per unit remains below 90 hours (i.e., the total plant purging time divided by two times the number of years, since the calendar year in which the application was approved will compute to less than 90 hours).

II. Conformance with Standard Technical Specifications

1. Licensee proposes several minor revisions to the Technical Specifications to conform to the Standard Technical Specifications (STS) submitted as Enclosure 3 to the July 7, 1982, correspondence. The proposed specifications and the corresponding sections of the STS are cross matched as follows:

<u>STS Section</u>	<u>PBAPS Technical Specifications</u>
3.6.1.7	3.7.D.2, 3.7.E.3
4.6.1.7.2	4.7.E.1
3.6.3	3.7.D.2
4.6.3.1	4.7.D.3
4.6.3.4 (last sentence)	4.7.E.2

2. The STS section and the conforming section of the current Peach Bottom Technical Specifications are listed below. Consequently, revisions to the Technical Specifications are not necessary for these STS sections.

STS Section

PBAPS Technical Specifications

- | | |
|---------------------------|-------------------|
| 4.6.3.3 | 4.7.D.1.a |
| 4.6.3.4 (first sentence) | 4.7.D.1 |
| 4.6.3.4 (second sentence) | Page 188 (note 4) |

3. Licensee requests the following alternatives and exceptions to the STS provisions.

- a. STS 4.6.1.7.1 requires that the purge and vent isolation valves shall be determined locked closed once per 31 days. The design of the Peach Bottom valve controls does not provide a locking feature. A remote locking feature would require a major modification. Locking the valves locally would inhibit our capability of reopening these valves in a timely manner under accident conditions. The emergency procedures developed in response to NUREG-0737, I.C.1, TMI Action Plan Requirement, require containment venting if the primary containment pressure limit is in jeopardy of being exceeded. The time required to defeat the local lock on the valve controls would delay the venting process, particularly when considering the potential harsh environment in the vicinity of the valve controls. Further, the NRC proposed STS 4.6.1.7.1 at a point in time when they had not issued a determination regarding the qualification

of the Peach Bottom purge and vent isolation valves. Pursuant to NUREG-0737, Item II.E.4.2(6), we have demonstrated that these valves satisfy the operability criteria. The requirement to have the valves locked closed and verified once every 31 days applies to valves that have not satisfied the criteria set forth in Branch Technical Position CSB6-4 or the Staff's Interim Position of October 23, 1979. Subsequently, in the December 12, 1983 letter, enclosure 3 (J. F. Stolz, NRC, to E. G. Bauer, Jr., PECO), the staff concluded that the operability of the Peach Bottom valves meet the staff's Interim Position for Containment Purge and Vent Valves Operation, and conforms to NUREG-0737, Item II.E.4.2(6). For the reasons stated above, Licensee does not propose incorporation of STS 4.6.1.7.1 into the Peach Bottom Technical Specifications.

- b. STS 3.6.1.7.1 and 3.6.1.7.2 require another valve associated with isolation of the penetration to be locked closed, and verified closed every 31 days, in the event a valve becomes inoperable. While the current Peach Bottom Technical Specification 4.7.D.2 does not require the valve to be locked, it does require that the closed position be recorded daily in Specification 4.7.D.2. Locking these valves would inhibit our capability of reopening

the valves in a timely manner under accident conditions (see Section II.3.a above). For this reason and considering the compensatory measure provided by daily verification, Licensee proposes that the current Technical Specification provision remain unchanged.

- c. STS 4.6.3.2 requires verification that a Phase A and Phase B containment isolation test signal closes the Phase A and Phase B isolation valve, respectively. The STS testing scheme does not reflect the isolation trip logic design utilized for the Peach Bottom containment purge and vent valves. In the Peach Bottom design each purge and vent isolation valve is controlled by one of two independent trip systems. Each trip system has inputs from four sensor channels. The four channels are connected to form a one-out-of-two taken twice logic. The input channels and the trip logic are tested in accordance with Technical Specification 4.2.A. Peach Bottom Technical Specification 4.7.D.1.a requires a simulated automatic initiation of each valve. Each trip logic is tested separately in accordance with detailed surveillance test procedures to ensure that the redundant features of the logic circuit are functional. Licensee proposes that the specific details regarding the implementation of

the valve testing should be addressed in the surveillance test procedures and not incorporated into the Technical Specifications. Limiting the Technical Specifications to the essential requirements for operation and testing enhances compliance with those provisions most important to nuclear safety.

- d. Proposed action statement 3.7.D.2.d reflects the 12-hour hot shutdown provision of the Standard Technical Specification sent the licensee for developing the Limerick Generating Station Technical Specifications, rather than the 6-hour provision in the July 7, 1982, STS. This avoids the need to initiate an accelerated shutdown necessary to reach hot shutdown within 6 hours, and therefore permits a more orderly shutdown of the plant. The cold shutdown provision is consistent with both Standard Technical Specifications. Additionally, the footnote on the bottom of page 177 is based on the STS used for the Limerick Generating Station.

Significant Hazards Consideration Determination

The proposed changes involve additional surveillance requirements and additional operating restrictions on the large containment purge and vent isolation valves that were requested

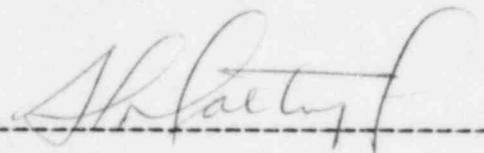
in previous NRC correspondence (July 7, 1982 and December 12, 1983). These changes are designed to reduce the probability for an uncontrolled radioactive release and consequently are an enhancement in safe operations of the facility. For these reasons, the amendment requests do not constitute a significant hazards consideration since they do 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 these proposed changes to the Technical Specifications and have concluded that they do 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


A handwritten signature in cursive script, appearing to read "S. H. Kelly", is written over a horizontal dashed line.

Vice President

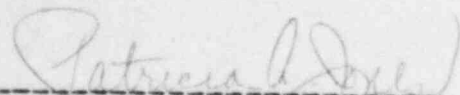
COMMONWEALTH OF PENNSYLVANIA :
COUNTY OF PHILADELPHIA : SS.
:

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 29th day
of May, 1984.

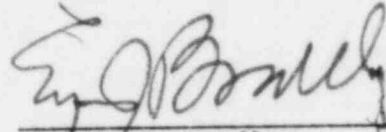


Notary Public

PATRICIA A. JONES
Notary Public, Phila., Phila. Co.
My Commission Expires Oct. 13, 1986

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 4th day of June, 1984.



Eugene J. Bradley

Attorney for
Philadelphia Electric Company