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NUCLEAR ENGINEERING & SERVICES DEPARTMENT

July 20, 1992

Docket Nos. 50-277  
50-278

License Nos. DPR-44  
DPR-56

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

SUBJECT: Peach Bottom Atomic Power Station, Units 2 and 3  
Technical Specifications Change Request 91-02, Rev. 1

REFERENCE: Letter dated 1/10/92 from G. J. Beck (PECo) to NRC

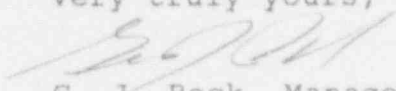
Dear Sir:

Philadelphia Electric Company (PECo) hereby resubmits Technical Specifications Change Request (TSCR) No. 91-02, Rev. 1 in accordance with 10 CFR 50.90, requesting a change to Appendix A of the Peach Bottom Facility Operating Licenses. This TSCR is being resubmitted because of an omission in the original submittal (reference 1). Changes in Appendix I as a result of this revision are indicated by revision bars in the margin. The proposed changes concern the Allowable Out of Service times for the Emergency Service Water System.

Attachment 1 to this letter describes the proposed changes, and provides justification for the changes. Attachment 2 contains the revised Technical Specification pages.

If you have any questions regarding this matter, please contact us. We regret any inconvenience this resubmittal may have caused.

Very truly yours,

  
G. J. Beck, Manager  
Licensing Section

Enclosures: Affidavit, Attachment 1, Attachment 2

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cc: T. T. Martin, Administrator, Region I, USNRC  
J. J. Lyash, USNRC Senior Resident Inspector, PBAPS  
W. P. Dornsife, Commonwealth of Pennsylvania

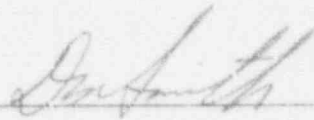
COMMONWEALTH OF PENNSYLVANIA:

: SS.

COUNTY OF CHESTER :

D. M. Smith, being first duly sworn, deposes and says:

That he is Sr. Vice President of Philadelphia Electric Company; the Applicant herein; that he has read the attached Technical Specifications Change Request (Number 91-02, Rev. 1) for Peach Bottom Facility Operating Licenses DPR-44 and DPR-56, 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.

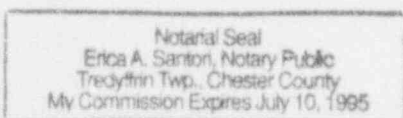


Sr. Vice President

Subscribed and sworn to  
before me this *20<sup>th</sup>* day  
of *July* 1992.



Notary Public



ATTACHMENT 1

PEACH BOTTOM ATOMIC POWER STATION  
UNITS 2 AND 3

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TECHNICAL SPECIFICATION CHANGE REQUEST  
91-02, Rev. 1

"Revisions to Allowable Out of Service Times for  
the Emergency Service Water System"

Supporting Information for Changes 14 Pages

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Philadelphia Electric Company (PECo), Licensee under Facility Operating Licenses DPR-44 and DPR-56 for the Peach Bottom Atomic Power Station (PBAPS) Unit No. 2 and Unit No. 3, respectively, requests that the Technical Specifications contained in Appendix A to the Operating Licenses be amended. Proposed changes to the Technical Specifications are indicated by vertical bars in the margins of pages 221, 223, 224, 234, 235a and 236a. The proposed revised pages for each unit are included in Attachment 2.

#### Description of Changes

The following changes and additions are being proposed.

- (1) Licensee proposes the addition of a Limiting Condition for Operation (LCO) to Section 3.9.C, to be numbered 3.9.C.2 which shall read: "If one ESW pump becomes inoperable the reactor may remain in operation for a period not to exceed seven (7) days. If this requirement cannot be met, an orderly shutdown shall be initiated and the reactor shall be placed in the cold shutdown condition within 24 hours."
- (2) Licensee proposes to reduce the existing Allowable Out of Service Time (AOT) delineated in current TS Section 3.9.C.2 from 1 month to require plant shutdown to within six (6) hours upon loss of two ESW pumps. This new LCO shall be numbered

3.9.C.3 and shall read: "If two ESW pumps become inoperable, the reactor shall be placed in hot shutdown within (6) hours and in cold shutdown within 36 hours."

- (3) Licensee proposes to delete the existing TS section 3.9.C.3 which discusses the operability requirements of the ECW system to provide an equivalent function as ESW. This equivalency has not been proven conclusively and the Licensee therefore, requests to eliminate confusion from the Technical Specifications.
- (4) Licensee proposes to reduce the existing Surveillance Test Interval (STI) for the Emergency Cooling Water pump and the ESW booster pumps from once per operating cycle to every 3 months. Surveillance requirement 4.9.C.3.a shall read, "The Emergency Cooling Water pump and ESW booster pumps shall be tested in accordance with Section X. of the ASME Boiler Pressure Vessel Code and applicable Addenda, except where relief has been granted."
- (5) Licensee proposes to reduce the existing STI for the Emergency Cooling Tower fans from once per operating cycle to every three months. Surveillance Requirement 4.9.C.3.b shall read: "The Emergency Cooling Tower fans shall be tested once every three months to verify operability."

- (6) Licensee proposes to revise the Bases of Section 3.9 to correctly define the relation between the ECW pump and the ESW pump. The second, third and fourth sentences of the last paragraph shall be deleted. The ECW pump could not be conclusively proven to satisfy the criteria to be equivalent to an ESW pump and its associated system for a Design Basis Accident (DBA); therefore, all references in the TS to such an equivalent function are being deleted.
- (7) Licensee proposes to revise the Bases of Section 3.9 by replacing the paragraph discussed in (6) with the following statement: "In the event one of the ESW pumps becomes inoperable, the 7 day allowable out of service time is conservative given the probability of an event requiring the use of both ESW pumps occurring in that amount of time. One ESW pump is capable of supplying the entire system. If both of the ESW pumps become inoperable, placing the reactor in a shutdown condition is consistent with the severity of the situation."
- (8) Licensee proposes to revise the Bases of Section 4.9. The last paragraph of the section shall be revised to eliminate references to the Emergency Cooling Water pump, the ESW Booster pumps and the Emergency Cooling Tower fans. This information belongs in the bases for the alternate heat sink facility as discussed in change number 12. The 4.11.B Bases

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will state: "The testing of the ESW Booster Pumps and the ECW pump is in accordance with existing ASME codes and applicable addenda except where relief has been granted and assures the required availability of the equipment."

- (9) Licensee proposes to add an additional Surveillance Requirement. This additional requirement will be numbered 4.9.C.3 and will state: "Each manual valve and each electric motor operated valve, that is not in the system flow path and that is not locked, sealed or otherwise secured in position, shall be verified monthly to be in its correct position."
- (10) Licensee proposes to add an additional Surveillance Requirement. This additional requirement shall be numbered 4.9.C.4 and will state for Unit 2 TS: "Once per refuel outage the bottom of the 'A' ESW pump intake structure will be inspected and cleaned as necessary to remove excessive silt."; the Unit 3 TS will state: "Once per refuel outage the bottom of the 'B' ESW pump intake structure will be inspected and cleaned as necessary to remove excessive silt."

The following changes are purely administrative, such as renumbering and relocating sections of the TS. These activities do not affect the safety of the plant and do not represent an unreviewed safety question.



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- (11) Licensee proposes that the LCOs for one ESW pump and two ESW pumps being inoperable be numbered 3.9.C.2 and 3.9.C.3, respectively. This numbering sequence is a purely administrative change designed to improve the logic and practicality of the TS.
- (12) Licensee proposes to relocate the TS Surveillance Requirements currently numbered 4.9.C.3.a and 4.9.C.3.b to section 4.11.B of the TS. Additional changes to these sections are being requested in this proposed amendment (paragraphs 4 and 5); however, the relocation to these sections to section 4.11.B is consistent with the function of these specific sections and is a purely administrative function designed to improve the logic and practicality of the TS.
- (13) Licensee proposes to rename Alternate Heat Sink Facility to Emergency Heat Sink in Section 3.11.B and 4.11.B and their associated bases. The proposed sections would read:

3.11.B. Emergency Heat Sink Facility

The level in the emergency reservoir of the Emergency Heat Sink Facility shall not be less than 17'. Should the level drop below this point action shall be taken to restore the level to above the minimum, within 7 days.

4.11.B. Emergency Heat Sink Facility

1. The level in the emergency reservoir of the Emergency Heat Sink Facility shall be checked once per month.

In addition to the changes proposed in paragraph 8, emergency would replace alternate in the section title. These changes would make the name of this facility consistent between the Updated Final Safety Analysis Report (UFSAR) and the Technical Specifications and eliminate some confusion among Licensee personnel. This change is strictly administrative.

## II. SAFETY DISCUSSION

Change request (1) concerns an additional LCO to assign a 7 day AOT for either of the ESW pumps should they become inoperable. In the event that one of the two ESW pumps become inoperable, the 7 day time period is considered conservative based on the fact that an additional 100% capacity pump would still be available. In addition, the 7 day LCO is consistent with the standard Technical Specification requirements for 100 percent remaining capacity.

A Probabilistic Risk Assessment comparison to the current TS allowable out of service times for the High Pressure Injection Cooling (HPCI) system and each of the diesel generators was completed. The proposed 7 day LCO for an ESW pump had an equal or less impact on the probability of a core damage accident in all

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cases. The allowable out of service times for the HPCI and DG have been approved and they are consistent with industry levels of risk. The proposed allowable out of service time for the ESW pumps is therefore a logical limitation which will not create an undue risk of a core damage accident.

The current Technical Specifications do not address this scenario and allowed unlimited operation with an Emergency Cooling Water (ECW) pump or an ESW pump inoperable. The ECW pump could not be shown conclusively to be an equivalent ESW pump. The operating staff at PBAPS has recognized this deficiency and has developed a formal plant policy in PORC Position Number 33 which takes no credit for the ECW pump and places an administrative limit of 7 days to restore the ESW pump to operability or begin shutdown. This TSCR will supplant PORC position 33 and replace an administrative limit with a TS limit.

Change request (2) concerns reducing the existing AOT for two ESW pumps from 1 month to 6 hours. The loss of both ESW pumps indicates a significant reduction in redundancy in emergency cooling of the diesel generators. This more restrictive limitation is proposed to enhance plant safety although actual operating experience indicates that a simultaneous failure of both ESW pumps has never occurred. In the current TS there is no LCO for this scenario. The operations staff currently must recognize that it is appropriate to enter TS 3.0.C in this situation. The generic TS

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3.0.C would also require a plant shutdown within 6 hours; however, by placing the requirement in the ESW section the human factors of the TS are improved.

Change request (3) concerns the deletion of Section 3.9.C.3. This section discusses the equivalency of the ESW and the ECW pumps. After an engineering evaluation, it was determined that these pumps are not equivalent. Because of this determination the proposed TS amendment is being submitted. To clarify the TS it is requested that this section of the TS be removed.

Change request (4) changes the surveillance test interval (STI) for the ESW booster pumps and the Emergency Cooling Water Pump from once per operating cycle to once every 3 months as specified by the ASME Code. A review of the surveillance tests indicates that the testing does not disturb pumps or valves in any manner which would preclude operation of the system in the event of actual demand. Therefore, there is no presumed test unavailability for the ECW system.

Change request (5) decreases the STI for the Emergency Cooling Tower Fans from once per operating cycle to once every three months. A review of the surveillance tests indicates that the testing does not disable the fans in any manner which would preclude operation of the system in the event of actual demand.

Therefore, there is no presumed test availability for the EHS system.

Change requests (6), (7) and (8) concern revising the Bases to accurately reflect changes proposed to Section 3.9, 4.9 and 4.11. Consistency between the Bases and their corresponding LCOs and SRs is necessary to avoid misinterpretations and to enhance the understanding of the intent of the requirement.

Change request (9) concerns the addition of a Surveillance requirement. This change conforms to the Standard Technical Specification surveillance requirements for valve position verification and would increase the reliability of the ESW system. No components in the ESW System are operated to perform this ST; therefore, there is no concern that increased testing could damage components or decrease system availability.

Change request (10) concerns the addition of a Surveillance requirement. This change conforms to the Standard Technical Specification surveillance requirements for inspection of the bottom of the ESW pump intake structure. The reliability of the ESW system would be improved by ensuring that the bottom of the structure was relatively free of mud and debris that could affect pump suction or clog system heat exchangers. The ESW pump which draws a suction from the intake structure being inspected may be blocked from operating to ensure the safety of the inspection team.

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This brief out of service time is not considered significant given the redundancy of the other ESW pump, the high ESW pump reliability and the improvement in system reliability that will result from this regular inspection. No components in the ESW System are operated to perform this ST; therefore, there is no concern that increased testing could damage components or decrease system availability.

Change request (11) and (12) concern the renumbering and location of LCOs and SRs to improve the logic and human factors of the Technical Specifications. These changes are strictly administrative in nature and have no effect on the safety of the plant.

Change request (13) concerns the renaming of the Alternate Heat Sink to the Emergency Heat Sink to eliminate a discrepancy in title between the UFSAR and the TS. This change is strictly administrative and has no effect on the safety of the plant.

#### No Significant Hazards Consideration

The change requests proposed in this Application do not constitute a significant hazards consideration in that:

- i) The proposed changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.

The proposed changes will not increase the probability or consequences of an accident previously evaluated.

The changes to Allowable Out of Service Times do not change any of the operating functions or render inoperable any equipment necessary to mitigate the consequences of an accident. By decreasing the allowable out of service times, the equipment will more likely be available to respond to mitigate the consequences of an accident.

The addition of new surveillance requirements and changes to existing surveillance requirements has a similar affect on plant equipment and has no affect on the probability or consequences of an accident. By inspecting the pump pit and the valve line up on a regular basis the probability that the equipment will be available to mitigate the consequences of an accident will be increased. In addition the increased surveillance of the Emergency Service Water Booster pumps and the Emergency Cooling Tower Fans can only improve the likelihood that this equipment will be operable when required.

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- ii) The proposed changes do not create the possibility of a new or different kind of accident from any previously evaluated.

The proposed changes to the TS impact equipment that is important to safety and that mitigates the consequences of an accident. This equipment and the changes being proposed do not change the operation of PBAPS and therefore, the changes cannot introduce any new or different kind of accident.

- iii) The proposed changes do not involve a significant reduction in a margin of safety.

The margin of safety is not reduced by these changes. No credit was taken in accident analysis for the ECW pump to act as an equivalent ESW pump. The other changes being proposed will give a greater assurance that equipment important to safety will be available to mitigate the consequences of an accident.

#### Environmental Assessment

An environmental impact assessment is not required for the changes proposed by this Application because the changes conform to the criteria for "actions eligible for categorical exclusion" as specified in 10 CFR 51.22(c)(9). The proposed



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changes do not involve any systems that have a direct relationship with the environment. The changes involve the definition of Surveillance Frequency. The Application involves no significant change in the types or significant increase in the amounts of any effluents that may be released off site and there will be no significant increase in individual or cumulative occupational radiation exposure.

#### Conclusion

The Plant Operations Review Committee and the Nuclear Review Board have reviewed these proposed changes and have concluded that they do not involve an unreviewed safety question and are not a threat to the health and safety of the public.