



PECO ENERGY

PECO Energy Company
Nuclear Group Headquarters
985 Chesterbrook Boulevard
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April 7, 1994

Docket Nos. 50-277
50-278
License Nos. DPR-44
DPR-56

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

SUBJECT: Peach Bottom Atomic Power Station, Units 2 and 3
Technical Specification Change Request 93-24

Dear Sir:

PECO Energy Company (PECO Energy) hereby submits Technical Specification Change Request (TSCR) No. 93-24, in accordance with 10 CFR 50.90, requesting a change to Appendix A of the Peach Bottom Facility Operating Licenses. The proposed changes concern the addition of an electrical tie line from the Conowingo Hydroelectric Power Station to Peach Bottom Atomic Power Station (PBAPS). The changes requested are for a reporting requirement for an inoperable line, surveillance requirements for the line, a relaxed allowable out of service time for an inoperable Emergency Diesel generator, and a change to the TS bases. This new line is being installed as a non-design basis alternate AC source, in accordance with 10CFR 50.63(a)(2), to complete PECO Energy's response to the Station Blackout Rule (SBO), 10 CFR 50.63, "Loss of All Alternating Current Power".

An additional change is being proposed to amend the internal referencing of the Diesel Generator Technical Specification.

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

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If you have any questions regarding this matter, please contact us.

Very truly yours,

A handwritten signature in cursive script, appearing to read "G. A. Hunger, Jr.", with a horizontal line drawn through the signature.

G. A. Hunger, Jr., Director
Licensing

Enclosures: Affidavit, Attachment 1, Attachment 2

cc: T. T. Martin, Administrator, Region I, USNRC
W. L. Schmidt, Senior Resident Inspector, PBA/PS
R. R. Janati, Commonwealth of Pennsylvania

COMMONWEALTH OF PENNSYLVANIA :

: SS.

COUNTY OF CHESTER :

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

That he is Senior Vice President and Chief Nuclear Officer of PECO Energy Company; the Applicant herein; that he has read the attached Technical Specifications Change Request (Number 93-24) 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.



Senior Vice President and
Chief Nuclear Officer

Subscribed and sworn to
before me this 7th day
of April 1994.



Notary Public

Notarial Seal
Erica A. Santoni, Notary Public
Tredyffrin Twp., Chester County
My Commission Expires July 10, 1995

ATTACHMENT 1

PEACH BOTTOM ATOMIC POWER STATION
UNITS 2 AND 3

Docket Nos. 50-277
50-278

License Nos. DPR-44
DPR-56

TECHNICAL SPECIFICATION CHANGE REQUEST
93-24

"Conowingo Line -
Changes to Emergency Diesel Generator Allowable Out
of Service Times and Reporting Requirements"

Supporting Information for Changes 5 Pages

PECO Energy Company (PECO Energy), 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 margin of pages 218, 220, 220b, 224 and 224a. The proposed revised pages for each unit are included in Attachment 2.

Introduction

These changes are being requested as part of the modification to install a line from the Conowingo Hydroelectric Power Station to PBAPS. The line will be used as a non-design basis alternate AC source in accordance with 10CFR50.63(a)(2) as required by the Station Blackout Rule, 10CFR50.63, "Loss of All Alternating Current Power."

On May 15, 1992, PECO Energy made a presentation to the NRC concerning a number of issues related to the onsite AC and DC power distribution capabilities at PBAPS. Included in this presentation were discussions of the Station Blackout issue and insights on the restrictions currently encountered in performing maintenance on the Emergency Diesel Generators (EDGs) at PBAPS.

During this presentation, PECO Energy included a proposal to install a dedicated power feeder from the Conowingo Hydroelectric Power Station and tie it into the PBAPS onsite distribution system. After follow-up discussions, the NRC indicated that this proposal would resolve the outstanding Station Blackout issue at PBAPS.

The addition of the Conowingo line requires a Technical Specification change. In a letter dated June 23, 1992, the NRC requested that the TS be amended to include a notification provision should the Conowingo line be inoperable and that Surveillance Requirements consisting of appropriate circuit breaker checks and power availability verification be included. In addition, the NRC indicated that because of the increased reliability of offsite power, the allowable out of service time (AOT) for an EDG could be extended. The increased AOT for an inoperable EDG is contingent upon the operability of the Conowingo line.

Details regarding the design of the Conowingo line were provided to the NRC by a PECO Energy letter dated August 6, 1992. NRC approval of the Conowingo line as the Station Blackout Alternate AC source was documented in a Supplemental Safety Evaluation dated October 23, 1992.

Description of Changes

The following changes and additions are being proposed.

(1) The licensee proposes to amend TS Limiting Condition for Operation (LCO) 3.9.B.3 to allow a single EDG to be out of service for 30 days with the Conowingo line operable. The AOT for an EDG will remain at the existing 7 days if the Conowingo line is inoperable. A provision is added to address the scenarios of either the Conowingo line or an EDG becoming inoperable while the other is already inoperable.

(2) The licensee proposes that an LCO, numbered 3.9.B.8, be added to require notification to the NRC should the Conowingo line become inoperable for 15 days.

(3) The licensee proposes that a Surveillance Requirement, numbered 4.9.B.8, be added to verify the operability of the Conowingo line once per month.

(4) The licensee proposes that the Bases section of the TS be amended to include guidance on the verification of the Conowingo line.

(5) The licensee proposes that the Surveillance Requirement 4.9.A.2.a be revised to reference the appropriate specification.

Safety Discussion

Change request (1) concerns changing the AOT for an EDG. The AOT will remain at 7 days should the Conowingo line be inoperable. A 7 day EDG AOT without the Conowingo is the same as currently in effect at PBAPS. The AOT for a single EDG inoperable would be extended to 30 days if the Conowingo line is operable. The additional reliability of the offsite source afforded by the Conowingo line would minimize the likelihood of a transient that would require an EDG. This increase in offsite electrical power reliability would allow one of the PBAPS onsite EDGs to be out of service for 30 days with no impact on the overall safe operation of the station.

The Peach Bottom standby AC power system is designed with sufficient redundancy such that one EDG may be removed from service for testing, inspection, or repairs in the time provided in the current Technical Specifications. The remaining three EDGs are capable of carrying sufficient loads to mitigate the consequences of an accident and maintain the units in the safe shutdown condition. The 30 day AOT will allow for easier maintenance scheduling and greater flexibility on the EDGs. Specifically, the current 7 day AOT requires 3 shift maintenance coverage during the scheduled engine overhaul and eliminates some modifications and upgrades from

consideration. A longer AOT would allow a more effective 2 shift coverage schedule during the required engine overhaul, and would make possible several upgrades and modifications that require more than 7 days to install.

A sensitivity analysis was performed utilizing results from the PBAPS Individual Plant Examination (IPE) to assess the impact of the addition of the Conowingo line on the calculated Core Damage Frequency (CDF). The Loss of Offsite Power (LOOP) contribution, which includes station blackout, is approximately 33% of the CDF. A LOOP sequence is one in which multiple (but not all) EDGs have failed subsequent to a loss of off-site power. The Conowingo line would be capable of supplying power with a capacity greater than the combined output of the onsite EDGs to the safeguard 4kV buses. This capability substantially reduces the need to load manage the available EDG power to successfully mitigate the affects of a LOOP-initiated event affecting one or both the PBAPS units. In addition, the Conowingo line is not vulnerable to failures from weather related events; therefore, the recovery time of offsite power to the safeguard buses would improve.

The attributes of the Conowingo line allow a higher probability of recovering offsite power than is currently credited in the PBAPS IPE. Offsite power recovery probabilities were adjusted to simulate the affect of a direct feed, weather tolerant source of offsite power. The sensitivity resulted in a substantial decrease in the LOOP contribution to the calculated CDF in the PBAPS IPE. In addition to the direct affect on CDF, the EDG importance was compared to assess the impact of an increased EDG AOT, given Conowingo line availability. The importance of the EDGs decreased as a result of the increased availability of offsite power to the safeguard 4kV buses; therefore, the increase in AOT does not have an appreciable contribution to the CDF. The combined effect of installing the Conowingo line and increasing the EDG AOT results in a decrease in the CDF at PBAPS.

The extended AOT requires the Conowingo line be operable. If the line is not operable, the AOT reverts to the existing 7 days. The effect of an inoperable Conowingo line is, therefore, to return PBAPS to its existing AOTs and requirements.

Additional administrative controls are in place to minimize the impact of an inoperable EDG. General Procedure (GP) - 23, "Diesel Generator Outages" provides the administrative controls for removing an EDG from service whenever the EDG is required to be operable. This procedure addresses both planned and unplanned EDG outages. Included in these controls are requirements to notify the Load Dispatcher (LD) that PBAPS has an inoperable EDG and to perform an offsite power breaker alignment and voltage check within one hour of declaring the EDG inoperable or before a scheduled maintenance outage. This breaker alignment and voltage check

will be performed every eight (8) hours as required by TS. In addition to these controls, Administrative Guideline (AG) - 101, "Substation Interface Agreement", is being revised to include special controls on activities in the substations when a EDG is out of service.

Change request (2) concerns adding a notification requirement to the PBAPS TS when the Conowingo line is inoperable. This proposed change represents an additional administrative requirement that will not affect the operation of PBAPS.

Change request (3) concerns a new Surveillance Requirement to verify the operability of the Conowingo line. The new requirement will not introduce any failure mechanisms to the existing components and will provide assurance that the Conowingo line is operable. The surveillance will be a combination of verification of circuit breaker line up, verification of power to PBAPS Unit 1, which will be supplied by the Conowingo line, and communications with the Load Dispatcher and the Conowingo Control Room. This surveillance will not introduce any new failure mechanisms or impact any existing equipment.

Change request (4) amends the Bases Section of the TS. The Bases do not include any requirements and merely clarify the TS. The proposed change will make the Bases and the TS consistent.

Change request (5) amends the TS to maintain consistency within the internal referencing and correct the numbering of TS.

Information Supporting a Finding of 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 because the probability of a LOOP is independent of the AOTs for EDG, and the additional surveillance requirements being proposed to the Conowingo line do not introduce any failure mechanisms to the previously considered LOOP. The consequences of an accident are independent of the AOTs. The increase AOT for the EDGs does not effect the consequences because the LOOP analysis considers that one EDG is out of service. Sufficient onsite electrical power is available with one EDG out of service. Further, the diversity of the offsite power is improved significantly by the Conowingo line. This increase in diversity will improve the mitigation potential following a LOOP.

The Peach Bottom standby AC power system is designed with sufficient redundancy such that one EDG may be removed from service for testing, inspection, or repairs in the time provided in the current Technical Specifications. The remaining three EDGs are still capable of carrying sufficient loads to mitigate the consequences of an accident and maintain the units in the safe shutdown condition. Therefore, the probability or consequences of an accident previously evaluated are not significantly increased by the additional time requested.

- ii) The proposed changes do not create the possibility of a new or different kind of accident from any previously evaluated because the requested change to increasing an AOT and this in and of itself does not create the possibility of a new or different kind of accident. The additional surveillance and reporting requirements being proposed for the Conowingo line do not introduce any new accident initiators.
- iii) The proposed changes do not involve a significant reduction in a margin of safety, because the Peach Bottom standby AC system is designed with sufficient redundancy such that one EDG may be removed from service for testing, inspection or repairs with the remaining three EDGs capable of carrying sufficient loads to satisfy the Updated Final Safety Analysis Report requirements for shutdown of both units. Considering this fact, as well as the decrease in likelihood of a LOOP event, changing the existing AOT does not reduce the margin of safety.

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).

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.