



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555

June 23, 1992

Docket Nos. 50-277
and 50-278

Mr. Dickinson M. Smith
Senior Vice President-Nuclear
Philadelphia Electric Company
Nuclear Group Headquarters
Correspondence Control Desk
P.O. Box No. 195
Wayne, Pennsylvania 19087-0195

Dear Mr. Smith:

SUBJECT: RESULTS OF DISCUSSIONS BETWEEN PHILADELPHIA ELECTRIC COMPANY AND THE NRC CONCERNING MODIFICATIONS TO ON-SITE POWER CAPABILITY FOR PEACH BOTTOM ATOMIC POWER STATION, UNITS 2 AND 3 (TAC NOS. 68582 AND 68583)

On May 15, 1992, you and members of your staff made a presentation to the NRC staff (the staff) concerning a number of issues related to the on-site AC and DC power distribution capability at Peach Bottom Atomic Power Station, Units 2 and 3. Included in the presentation were discussions of the Station Blackout issue and insights on the restrictions currently encountered in performing maintenance on the Emergency Diesel Generators (EDG) at the station.

You completed your presentation with a proposal to install a dedicated power feeder from the Conowingo Hydroelectric Power Station and tie it into the Peach Bottom on-site distribution system. The staff viewed this proposal as a positive initiative. Following the meeting, additional discussions were held during teleconferences on May 19, May 20, June 4 and June 22, 1992 between your staff and the NRC staff to further define your proposal. Based on the meeting and the follow-up discussions, the staff believes that, provided the technical details of the feeder are acceptable, the feeder could be used to resolve the longstanding issue of Station Blackout and could be used as a basis for providing an extension of the current Limiting Condition for Operation for the EDGs. Further details of PECO's proposals are contained in the Meeting Summary dated June 9, 1992. Details of the follow-up discussions are contained in the Teleconference Summary (Enclosure 1).

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Mr. Dickinson M. Smith

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June 23 - 1992

The staff is interested in an expeditious resolution of the Station Blackout issue for Peach Bottom and in order to bring these issues to closure, I request that Philadelphia Electric Company respond to the staff's questions on the technical details of the Conowingo feeder (Enclosure 2) by July 24, 1992.

This requirement affects fewer than 10 residents and, therefore, is not subject to Office of Management and Budget review under P.L. 96-511.

If you have further questions regarding this issue, do not hesitate to contact Joe Shea, the NRR Project Manager for Peach Bottom, at (301) 504-2426.

Sincerely,
Original signed by Charles L. Miller
Charles L. Miller, Director
Project Directorate I-2
Division of Reactor Projects - 1/11
Office of Nuclear Reactor Regulation

Enclosures:

1. Teleconference Summary
2. List of Questions

cc w/enclosures:
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Mr. Dickinson M. Smith

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June 23, 1992

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If you have further questions regarding this issue, do not hesitate to contact Joe Shoa, the NRR Project Manager for Peach Bottom, at (301) 504-2426.

Sincerely,

Charles L. Miller

Charles L. Miller, Director
Project Directorate I-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

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SUMMARY OF TELECONFERENCE DISCUSSIONS CLARIFYING DESIGNATION
OF THE PROPOSED CONOWINGO FEEDER AS AN ALTERNATE AC SOURCE

As documented in the meeting summary dated June 9, 1992, the NRC staff position is that the current Peach Bottom Station Blackout (SBO) analysis is unacceptable. In the proposal made by Philadelphia Electric Company, the power feeder from the Conowingo Hydroelectric Station was not considered as an Alternate AC (AAC) source for station blackout considerations. However, in light of the fact that the staff proposes to find Peach Bottom's current SBO analysis unacceptable, the proposal to not consider the Conowingo feeder as an alternate AC source is also considered unacceptable by the staff.

The above staff position was discussed with D. Helwig and members of PECO's staff during a teleconference on May 19, 1992.

In follow-up teleconferences on May 19, May 20, June 4 and June 22, 1992, PECO expressed willingness to commit to the installation of the Conowingo line and consider it the Station Blackout Alternate AC source for Peach Bottom. PECO also expressed willingness to commit to certain attendant programmatic controls on the feeder considered as an AAC. These controls are described below:

1. PECO would submit a Technical Specification change request that would impose a requirement that if the Conowingo feeder were inoperable for fifteen days, PECO would notify the NRC. Such a notification would include at least a discussion of the expected restoration of the line and any precautions that would be observed while the line was inoperable.
2. PECO would submit a Technical Specification change request that modifies the Limiting Conditions for Operation (LCO) allowed out of service time (AOT) for the Emergency Diesel Generators (EDG). Such a change would be expected to include provisions for extending the AOT for a single inoperable EDG from the current 7-day AOT to an AOT of between 14 and 30 days provided that the Conowingo feeder was verified operable. If the feeder was inoperable, the AOT for a single inoperable EDG would remain 7 days.
3. PECO would commit to impose Technical Specification surveillance requirements on the Conowingo feeder. These surveillance requirements would consist of appropriate circuit breaker lineup checks and power availability verification at appropriate intervals.
4. PECO would provide a description of the quality assurance standards and programs that they would apply to the Conowingo feeder including a description and justification of how such a program might differ from the requirements of Regulatory Guide 1.155, Appendix A.

Provided that the technical details of the Conowingo feeder as described in response to the staff's question in Enclosure 2 are acceptable, the staff would find the use of a dedicated power feeder from Conowingo as a Station Blackout AAC as well as the attendant program controls described above acceptable.

Peach Bottom SBO IssueRequest For Additional InformationOn Proposed DeDicated Feeder From Conowingo Hydro Station

An acceptable response to the following questions, together with PECO's submittal of April 24, 1991, would provide the basis for evaluating the acceptability of the Peach Bottom SBO capability.

1. Provide a complete description of the proposed circuit from the Conowingo Station to the Peach Bottom safety buses. One-line diagrams showing the hydro units, buses, transformers, breakers, protected transmission line, associated voltage levels and capacities, and extent of protection against weather related events would be acceptable.
2. Confirm that the 33kV line from Conowingo and the associated 33kV/13kV transformer and 13kV bus at Peach bottom would be continuously energized, and that any unavailability or fault on this circuit would be immediately alarmed in the Peach Bottom control room.
3. Describe the procedures for assuring restoration of power to Peach Bottom from the Conowingo station given (1) a general system failure including trip of the Conowingo units, and (2) a system failure which did not trip the Conowingo units. In each case, provide the time required for restoration.
4. Provide the expected overall availability (considering both reliability and availability aspects) of the power supply from the Conowingo hydro site at the Peach Bottom 13kV bus. Provide an estimated breakdown for the separate components (e.g., hydro power, transformers, 33kV cable) including the bases for these estimates to the extent that such information is available.
5. Describe how Peach Bottom's priority for Conowingo's power will be implemented. For example, if the spinning reserve at the Conowingo hydro site were not sufficient to supply the SBO load on demand, what would the sequence of events be (communications required, shedding of 33 kV load, adding hydro generation, etc.)?
6. In event of an SBO at Peach Bottom, provide your best and worst case estimates of the time required to energize the safety buses at Peach Bottom from the Conowingo power source. Also, state which of these estimated times is used in arriving at your answer to question 7.

7. Your April 24, 1991, revised response to the SBO Rule provided a coping assessment for an 8-hour SBO assuming one of the existing EDGs would be available as an AAC source within 1 hour. Consider each section (i.e., condensate inventory, Class 1E battery capacity, compressed air, effects of loss of ventilation, containment isolation, reactor coolant inventory, etc.) and state if any changes would be applicable to these sections if the Conowingo power source were the AAC power source rather than the EDG.
8. Address each item of NUMARC 87-00, Appendix B (i.e., B1 through B13) and describe to what extent the Conowingo hydro power source to Peach Bottom meets these criteria for AAC power sources.
9. Describe the testing that will be performed in accordance with 10 CFR 50.63(c)(2) to demonstrate the capability of Conowingo as the AAC source.
10. Provide an estimated implementation schedule for the proposed power feeder from the Conowingo Station.
11. If the allowable outage time (AOT) for an inoperable EDG is increased from 1 week to 2 weeks, how would this affect the overall availability (considering both reliability and availability aspects) of the EDG? Same question if the AOT for an inoperable EDG is increased from 1 week to 30 days? Provide the bases for these answers.
12. Provide the results of PRA analyses that have been performed in support of the proposed power feeder from the Conowingo Station.
13. Provide historical data on Peach Bottom's EDG unavailability (due to maintenance) during power operations and during shutdown of one or both units.

Mr. Dickinson M. Smith
Philadelphia Electric Company

Peach Bottom Atomic Power Station,
Units 2 and 3

cc:

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