

10 CFR 50.90



PECO ENERGY

PECO Energy Company
Nuclear Group Headquarters
965 Chesterbrook Boulevard
Wayne, PA 19087-5691

August 17, 1994

Docket No. 50-277

License No. DPR-44

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

Subject: Peach Bottom Atomic Power Station, Unit 2
Response to Request for Additional Information Regarding
Technical Specifications Change Request No. 93-02 (ASD RAI-3)

Dear Sir:

Attached is our response to your request for additional information regarding Technical Specifications Change Request No. 93-02 concerning the implementation of the end-of-cycle Minimum Critical Power Ratio Recirculation Pump Trip (MCPR-RPT) at Peach Bottom Atomic Power Station (PBAPS), Unit 2.

If you have any questions, please contact us.

Very truly yours,

G. A. Hunger, Jr.
Director - Licensing

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

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COMMONWEALTH OF PENNSYLVANIA

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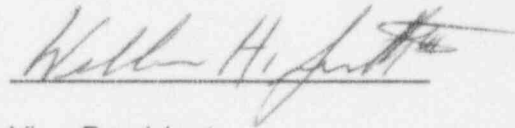
SS.

COUNTY OF CHESTER

:

W. H. Smith, III, being first duly sworn, deposes and says:

That he is Vice President of PECO Energy Company; the Applicant herein; that he has read the enclosed response to the NRC request for additional information concerning Technical Specifications Change Request (Number 93-02) for Peach Bottom Facility Operating License DPR-44, 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.

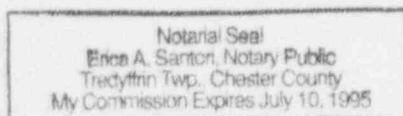


Vice President

Subscribed and sworn to
before me this 17th day
of August 1994.



Notary Public



**RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION (ASD RAI-3)
Peach Bottom Atomic Power Station, Unit 2**

Question:

"GDCs 10 and 20 state that the reactor core and associated coolant, control, and protection systems and functions shall be designed with appropriate margin to assure that specified acceptable fuel design limits are not exceeded during normal operation, including the effects of anticipated operational occurrences. GDC 1 states that components important to safety shall be designed, fabricated, erected, and tested to quality standards commensurate with the importance of the safety function to be performed. With the EOC-RPT modification proposed for the PBAPS, the operating limit MCPR for the limiting transient (LRNBP) will be established taking credit for the EOC-RPT. What assurance can be provided that the safety limit MCPR (specified fuel design limit) will not be violated for the LRNBP transient? The present licensing basis for the PBAPS does not incorporate the EOC-RPT for establishing the operating limit MCPR therefore, this modification will change the licensing basis for the plant. In view of the GDC requirements, how do you justify having a non-safety grade EOC-RPT system?"

Response:

Safety-related equipment, based on Appendix A of 10 CFR 100, is that equipment necessary to ensure:

- (a) the integrity of the reactor coolant pressure boundary,
- (b) the capability to shutdown the reactor and maintain it in a safe shutdown condition, or
- (c) the capability to prevent or mitigate the consequences of accidents that could result in potential offsite exposure comparable to the 10 CFR Part 100.11 guidelines.

The end-of-cycle Minimum Critical Power Ratio Recirculation Pump Trip (MCPR-RPT) System is not used in the overpressure protection analysis to ensure the integrity of the reactor coolant pressure boundary. Therefore, safety-related criterion (a) is not applicable to the MCPR-RPT System.

The MCPR-RPT System feature is used to reduce core reactivity only during anticipated operational occurrences (AOOs), but it is not used for plant shutdown. Per the group III GDCs ("Protection and Reactivity Control Systems"), the MCPR-RPT System is a reactivity control system, but is not classified as a protection system since the intended functions do not include shutting down the reactor. Therefore, safety-related criterion (b) is not applicable to the MCPR-RPT System.

Violation of the safety limit MCPR does not result in a potential offsite exposure comparable to the 10 CFR Part 100.11 guidelines. Critical Power Ratio (CPR) events for all Boiling Water Reactors (BWRs) are classified as AOOs. The MCPR-RPT System is not used to prevent or mitigate the consequences of any accident. Therefore, safety-related criterion (c) is not applicable to the MCPR-RPT System.

The GDCs apply to both safety-related and nonsafety-related equipment. Although the MCPR-RPT System is connected to the Reactor Protection System (RPS), appropriate isolation devices are utilized to isolate the MCPR-RPT System from the RPS. Therefore, nonsafety-related to safety-related interface requirements are met. Additionally, the PBAPS, Unit 2 MCPR-RPT System is designed to meet single failure criterion (SFC). These features satisfy the quality requirements of GDC 1.

GDC 10 addresses normal operation and AOOs, which may be mitigated by nonsafety-related equipment. The MCPR-RPT System would satisfy this function.

GDC 20 addresses protection system functions. GDC 20 is not applicable because the MCPR-RPT System is a reactivity control system and not a protection system.

The present licensing basis does not include the MCPR-RPT System. Adding the proposed MCPR-RPT System to PBAPS, Unit 2 would reduce the changes in Critical Power Ratio (CPR) resulting from certain AOOs. Therefore, the proposed MCPR-RPT System would change the plant's licensing basis, but in a manner that increases plant safety. Furthermore, the cycle specific licensing analyses will continue to include an evaluation of the load rejection with no bypass (LRNBP) transient without the MCPR-RPT System, including the development of appropriate MCPR operating limits, to account for the possibility that the MCPR-RPT System may become inoperable. Routine testing will be performed to demonstrate the operability of the system. If the system is found to be inoperable, the non-MCPR-RPT operating limits would be utilized, assuring that the safety limit MCPR will not be violated for the LRNBP transient.

In addition to the discussion above, the RPT function has been approved by the NRC (July 13, 1994) as a nonsafety-related function as a part of the Advanced Boiling Water Reactor Safety Analysis Report.