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April 18, 1983

Docket Nos: 50-277
50-278

Mr. John F. Stolz, Chief
Operating Reactors Branch #4
Division of Licensing
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

SUBJECT: NUREG-0737, Item II.K.3.13, RCIC Automatic Restart

Dear Mr. Stolz:

This letter provides the information you requested in correspondence dated March 16, 1983 (J. Stolz, NRC to E.G. Bauer, Jr., PECO) regarding the design criteria used to implement the RCIC automatic restart feature required by NUREG-0737, Item II.K.3.13. The responses to the NRC acceptance criteria follows:

1. NRC Position

The RCIC system shall be modified to relocate the existing logic for the high reactor vessel water level trip from the RCIC turbine trip valve to the steam supply valve to permit subsequent auto restart of the RCIC system on low water level. This change will be consistent with actions identified in the BWR Owners' Group proposed modification, noted above (in the safety evaluation report), for RCIC automatic restart, including plant specific considerations.

Response

The RCIC system has been modified by relocating the previously existing logic for the high reactor vessel water level trip from the RCIC turbine trip valve to the steam supply valve. This modification permits subsequent auto restart of the RCIC system on low reactor water level. The change is consistent with actions, including plant specific considerations,

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identified in the BWR Owners' Group proposed modification and discussed in the NRC's safety evaluation except that a new alarm for turbine shutdown upon high reactor water level was not provided.

Previous to the modification, one of the signals that annunciated the RCIC turbine trip alarm was a high reactor water level trip of the turbine. This feature was lost when the trip logic was relocated to the steam supply valve. The Owners' Group recommended a new alarm to maintain the high level trip feature. However, the Peach Bottom Plant Operations and Review Committee concluded that the retention of this alarm would be misleading to the operator since shutdown on high water level is now a normal function of the RCIC control system (i.e., the system cycles automatically between low and high water level), and does not represent an abnormal condition. The turbine trip annunciator continues to receive signals indicative of an abnormal condition, e.g., turbine overspeed, high turbine exhaust pressure, etc. Indication of the position of the RCIC steam supply valve is indicated in the control room, and along with reactor water level indication and alarms, the operator is provided with the information necessary to verify proper operation of the system.

2. NRC Position

The modification to the RCIC system shall be designed and implemented to standards consistent with the original system design.

Response

The modification required to implement the RCIC automatic restart was designed and implemented to standards consistent with the original system design.

3. NRC Position

For those plants for which the RCIC system is classified as a safety-related system, the quality assurance requirements of Appendix B to 10CFR Part 50 apply. In order to provide assurance that the modifications of the RCIC system are implemented to standards commensurate with the systems importance to safety for those plants for which the RCIC system is not classified as a safety-related system, the following requirements are applicable.

- a. Design control measures shall provide for verifying the adequacy of the design, such as by the performance of an independent design review of the changes, consistent with the intent of Section III "Design Control", of Appendix B to 10CFR Part 50.*
- b. A system function test shall be conducted to verify the adequacy of the design to satisfy its functional performance requirements consistent with the intent of Section XI, Test Control of Appendix B to 10CFR Part 50.*

*Reference to Appendix B is to provide guidance rather than to establish specific requirements.

Response

The RCIC system is classified as a safety-related system and therefore the quality assurance requirements of Appendix B to 10CFR50 were applied to the modification required to implement the RCIC automatic restart.

As stated above, the requirements of NUREG-0737, Item II.K.3.13 have been implemented at Peach Bottom in accordance with the acceptance criteria identified in your March 16, 1983 letter.

Should you have any questions regarding this matter, please do not hesitate to contact us.

Very truly yours,



cc: A. R. Blough, Site Inspector